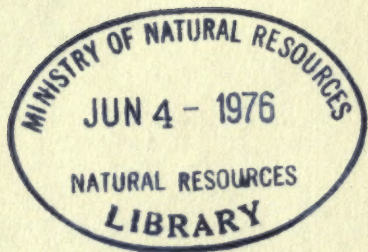


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REPORT

OF THE

Minister of Lands, Forests and Mines

OF THE

PROVINCE OF ONTARIO

For the Year Ending 31st October

1914

PRINTED BY ORDER OF
THE LEGISLATIVE ASSEMBLY OF ONTARIO



TORONTO

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Report of the Minister of Lands, Forests and Mines of the Province of Ontario

For the Year Ending 31st October, 1914

To His Honour The Lieutenant-Governor of the Province of Ontario.

MAY IT PLEASE YOUR HONOUR:

I have the honour to submit for the information of your Honour and the Legislative Assembly a report for the fiscal year ending 31st October, 1914, of the management of the Crown Lands of the Province.

CLERGY LANDS.

The area sold during the year was 447 acres, the value of which was \$256.50. The collection on account of Clergy Lands was \$1,367.56. (See Appendix No. 3, page 7.)

COMMON SCHOOL LANDS.

There were no sales. The collection on account of former sales was \$4,978.03. (See Appendix No. 3, page 7.)

GRAMMAR SCHOOL LANDS.

The area sold during the year was 25 acres, for \$43.75. The collection on account of those and former sales was \$957.91. (See Appendix No. 3, page 7.) *

UNIVERSITY LANDS.

The area of these lands sold during the year was 6,047 acres for \$3,023.50. The collection on account of these and former sales was \$2,498.74. (See Appendix No. 3, page 7.)

CROWN LANDS.

There was sold during the year for agricultural and town site areas 137,666 acres for \$98,030.68. The collection on account of these and former sales was \$83,529.50. There was sold for mining purposes 17,383 acres for \$43,763.31. There was collected on account of these and former sales \$41,027.50.

There was leased for mining purposes 5,837 acres for \$5,837.61. There was collected on account of these leases and those of former years \$16,469.76. There was leased of Crown lands an area of 7,555 acres for \$5,749.06. There was collected on account of these and the leases of former years \$40,755.48.

The total area of Crown lands disposed of by sale and lease during the year was 174,961 acres for a value of \$156,704.41, as compared with 260,873 acres sold and leased in 1913 for \$259,956.88. The total collection on account of the sales, leases, etc., was \$191,584.48. (See Appendix No. 3, page 7.)

It will be observed that there has been a falling off in the number of sales made as well as in the receipts of money from that source. The net decrease in the number of purchases is 363. The causes of the falling off are not difficult to understand. They are attributable to the disturbance in all channels of trade, labor and finance. People found it very difficult to get money for any purpose and with the fear of what might occur those who had a few hundred dollars ahead preferred to keep them rather than to expend them in moving to a new part of the Province while matters were so unsettled. Then a considerable percentage of the young men that might have gone into newer parts have gone to fight for their King. In these and other ways it is quite easy to account for the falling off in the number of settlers who have taken up land in the newer parts of the Province. The falling off is mostly in the clay belt in Townships which have been opened for some little time. When a Township is opened for the first time there is a considerable rush of people into it which falls off when settlers have to go farther back from the railway and other highways. The Transcontinental Railway is still in the hands of the contractors.

FREE GRANTS.

During the year, 1,882 persons were located for Free Grant Lands, or over 300 in excess of the previous year while 301 settlers purchased land in Free Grant territory, thereby making practically 2,200 persons taking possession of Free Grant land for a total area of 268,238 acres, which is greater by 28,966 acres than the year ending October 31st, 1913.

The northern portions of the Province benefited mostly by the settlement, the District of Thunder Bay receiving no less than 632 settlers, while Rainy River and Kenora received 761. The District of Sudbury and that portion of Nipissing lying north of Lake Nipissing, showed an increase over the preceding year. Patents were issued to 767 locatees who completed their settlement duties.

The Townships of Sterling in the District of Thunder Bay and of Britton and Rowell in Kenora were opened for location under the Free Grant Section of the Public Lands Act.

MILITARY GRANTS.

The total number of military certificates issued to date, under the Veterans Land Grant Act, I Edward VII, Cap. 6, and amendments thereto, is 13,998.

During the year there have been 47 certificates located, making in all a total of 8,064 located.

There were 8 certificates surrendered to the Crown for the \$50.00 commutation; this makes a total of 3,234 certificates surrendered.

In 19 cases the certificates have been surrendered and applied in payment of lands purchased from the Crown making a total of 721 that have been applied in this manner.

During the year there have been 335 patents issued for lands located by veterans making a total of 6,740 thus disposed of.

The total number, therefore, of certificates that have now been redeemed is 11,945, leaving 1,879 still outstanding.

The locatees of all lands granted under this Act, must apply for their patents for such land before ten years have expired from date of location. If this applica-

tion for patent is not made within the ten years, then the land comes under the settlement regulations, and unless the settlement duties are proceeded with, the locations are liable to cancellation.

THE MINERAL INDUSTRY.

The growth which marked the output of the mining industry of Ontario during the previous decade underwent a decided check in 1914, the value of the production being \$46,632,105, as compared with \$53,232,311 in 1913—a decrease of \$6,600,206, or 12.3 per cent. It fell below the level of 1912 by \$1,641,406, but considerably exceeded that of any preceding year. The decrease was somewhat greater in amount in the metallic than in the non-metallic products, being \$3,638,438, as compared with \$2,961,768.

The causes of this diminution were two: (1) the general depression in business which became apparent early in the year, and (2) the outbreak of hostilities in Europe.

Of gold the production was the largest in the history of the Province, 268,942 ounces, worth \$5,529,767. Much the greater part came from Porcupine, the Hollinger mine being the leading producer. The Dome, Porcupine Crown and McIntyre Porcupine mines also contributed largely. There were in all 608,200 tons of ore crushed, the average yield being \$9.14 per ton.

The output of silver in 1914 was 25,999,374 fine ounces, being a decrease, as compared with 1913, of 3,725,557 ounces, or 12.5 per cent., or 17.4 per cent. as compared with 1911, when the Cobalt mines were at their maximum and produced 31,507,791 ounces.

The return to the mining companies was \$13,209,726, an average of 50.807 cents per ounce.

The production by camps was as follows:—

	Ounces.	Value.
Cobalt proper	24,940,613	\$12,678,181
Casey township	499,643	236,298
South Lorrain	104,665	54,310
Gowganda	399,300	211,184
	<hr/>	<hr/>
	25,944,221	\$13,179,973
Silver recovered from auriferous ores	55,153	29,753
	<hr/>	<hr/>
Total	25,999,374	\$13,209,726

Since the opening of the mines at Cobalt the production of silver has amounted to over 211 million ounces, having a value of more than 111 million dollars.

Nickel was produced to the extent of 22,760 tons, and copper 14,453 tons. The source of these metals was the nickel-copper ore of the Sudbury District, of which there was raised 1,072,207 tons and smelted 947,053 tons. Some 79,825 tons of similar ore came from the Alexo mine in Dundonald township. The nickel contents of the matte were less than 1913 by 2,178 tons, and the copper contents more by 1,512 tons.

Iron ore, including concentrates, was shipped from the mines and works to the extent of 240,059 tons, valued at \$531,379.

The production of pig iron fell from 648,899 tons worth \$8,719,892 in 1913 to 556,112 tons worth \$7,041,079 in 1914. Four blast furnace plants were in operation, namely, at Sault Ste. Marie, Hamilton, Port Colborne and Deseronto.

Building materials of all kinds had a diminished output, including brick, stone, lime, Portland cement, etc.. Natural gas remained at practically the same figure as in 1913, while petroleum showed a continuation of the decline which set in a number of years ago.

COLLECTIONS.

The total revenue of the Department from all sources was \$2,340,657.07. Of this \$83,529.50 came from agricultural lands and town sites; mining lands \$41,027.50; mining and crown leases \$57,225.24; miners' licenses, permits and recording fees \$64,195.26; royalties \$74,685.11; supplementary revenue tax \$306,861.40. From woods and forests the revenue was \$1,674,887.93, made up of the following items, bonus \$454,167.24; timber dues \$1,112,480.38; ground rent \$103,910.31; transfer fees \$4,330.00. (See Appendix No. 4, page 8.)

DISBURSEMENTS.

The total expenditure of the Department for ordinary services was \$596,669.32. Some of the principal items were: Agents' salaries and disbursements \$16,885.77; homestead inspectors \$11,911.29; Crown timber agents \$30,826.48; wood ranging and estimation of timber \$118,462.80; fire ranging \$150,588.05; forest reserves, fire ranging, etc., Temagami reserve \$42,137.90, Metagami reserve \$8,127.82, Mississauga reserve \$20,066.19, Nipigon reserve \$13,234.90, Eastern reserve \$2,828.85, Sibley reserve \$705.00; mines and mining \$44,153.50; mining recorders \$23,143.17; surveys \$36,496.20; refunds \$16,033.98; contingencies, lands and forests \$33,448.48, bureau of mines \$6,016.29.

There was expended under the direction of the Department the sum of \$879,780.85. Of this amount, \$802,578.19 was in connection with the northern development, under 2 Geo. V, while the other principal items were Algonquin Park \$24,782.76, Quetico Provincial Park \$11,003.18, and expenditure under Bounty Act, 7 Edward VII, cap. 14, \$41,016.72. (See Appendix Nos. 6 and 7, pages 10 to 36.)

WOODS AND FORESTS.

The revenue accrued due for the year ending 31st October, 1914, was \$2,009,131.43, a decrease of \$118,191.13, as compared with the accrual of last year. The revenue collected during the year from woods and forests amounted to \$1,674,887.93, a decrease of \$304,237.88 as compared with the revenue collected last year. The revenue from timber dues was \$1,112,480.38 against a collection of \$1,277,490.08 last year. The collection on account of Bonus was \$454,167.24 as against \$591,676.29 last year. The collection on account of ground was \$103,910.31 as against \$99,460.19 of last year. The revenue from transfer fees was \$4,330.00 as against \$10,500.00 last year.

LANDS UNDER LICENSE.

The area under license last year was 17,333 square miles, as against 17,517½ square miles last year. The area under license varies from year to year from several reasons. Areas cut-over are dropped and other areas go into what is called "abeyance," that is the ground rent not being paid the license does not

issue, or perhaps Crown timber dues are owing, in which case the license does not issue. Then the next year the ground rent or dues having been paid up the licenses are again issued and the area under license is considerably increased although no sale has taken place.

There was surrendered during the year 1,111 square miles and new licenses were issued for territory aggregating nearly 500 square miles.

VOLUME OF OUTPUT.

The production of pine timber, sawlogs and square timber, etc., in feet board measure during the year was 382,582,027 ft. B.M., being 22,204,839 ft. B.M. in excess of the output of last year. The output of timber other than pine this year was 77,451,857 ft. B.M. as against 64,097,436 ft. B.M. last year. The quantity of pulpwood taken off Crown Lands was 104,544 cords as against 131,434 cords last year. There were taken out 5,439,845 pieces of railway ties as against 6,355,828 pieces last year.

FINANCIAL STRINGENCY.

In the report last year the existence of financial stringency was referred to and the opinion was expressed that there would not be much increase in the output of logs. Financial matters did not improve, but on the contrary became worse in the sense that the war came upon us in August just when lumbermen were making arrangements for the payment of accounts for the previous season and also for advances on account of their lumber operations during the coming season. For some time after the breaking out of the war financial matters were in a state of chaos and lumbermen found it impossible to finance both their operations and the payment of their accounts for timber dues and they frankly said so. The Department has never failed to take into consideration the state of financial matters and to assist in preventing a crisis in the lumber trade by extending leniency to those indebted to it for timber dues, because the security of the limits is good. In pursuance of that policy the Department did not press for payment in full of accounts for dues, etc., consequently the collection from woods and forests has been about \$304,237.88 below the estimated revenue. It is not expected that the output for the present winter will greatly exceed that of last winter, although the financial position is somewhat improved.

FIRE-RANGING.

We had on duty last year directly under the supervision of the Department 606 men, distributed as follows: On forest reserves 214; Quetico and Algonquin Parks 19; railways 229; Crown lands 106; chief rangers 26; deputy chief rangers 4; supervising rangers on licensed territory 8. On lands under license there were 320 rangers on duty. These rangers are selected by the licensees, subject to the approval of the Department which has power to refuse to appoint or remove after appointment if the person recommended is not of good character or neglects his duties. The recommendations are left with the licensees because they have their lumbermen, foremen and others who are familiar with the topography of their limits and know where settlers are and generally the danger points which require close watching. The licensees have to pay their own rangers and any expense caused by the fighting of forest fires on their limits. The Department puts on supervising rangers—8 in number—on the licensed territory for the purpose of

seeing that the lumberers' rangers are on duty and that all limits are properly protected. If the licensees neglect to put on the necessary rangers the Department puts them on and charges the remuneration and expense against the limit, withholding the license until the indebtedness is paid. The supervising rangers—8 in number—are paid by the Department in the first place, but the expense and wages are collected from the licensees pro rata, according to the miles under license to each.

Several fires occurred last year. A few in the Mississauga Forest Reserve, which necessitated the sale of some timber berths in order that the timber should be cut during the present season. There was also a serious fire in the Algonquin Park which was extinguished with difficulty and not until considerable timber was damaged. This timber was offered for sale but owing to the depression in the timber trade no bids were obtained. On the whole, however, the fires on lands of the Crown were not serious and except as above stated, no losses were incurred. There were several fires on licensed territory, notably in the Townships of Parkin, Goschen and Montgomery. In all these cases the licensees made preparations to cut the damaged timber and it will not come out this winter. The Georgian Bay Lumber Company lost their camps and supplies. Altogether, their loss of \$10,000.00 was entailed by the carelessness of someone.

FOREST RESERVES.

Temagami forest reserve contains an area of 6,000 miles. It has had the usual staff of firerangers in it during the past year and no fires have taken place.

Mississauga forest reserve is tributary to a river of the same name. The original area of this reserve was 3,000 miles, but last year there was added to it 1,896 miles, so that it now contains an area of 4,896 miles. One or two fires occurred in the reserve during the past year, which are referred to under the heading of fireranging.

Nipigon forest reserve contains an area of 7,300 miles. It surrounds Lake Nipigon, a large lake. While it does not contain a great quantity of pine there is considerable pine in it and an enormous quantity of pulp timber, spruce, etc. There were no fires in this reserve during the past year.

What was called the Quetico reserve in Rainy Lake District contains an area of 1,500 miles, and has a large quantity of pine timber in it. It is now changed into a park, and is known as the Quetico Provincial Park.

The Eastern forest reserve is situated in the County of Addington and has an area of 100 square miles. There were no fires in this reserve during the past year.

Sibley reserve contains an area of 70 miles and is preserved principally to keep the promontory called "Thunder Cape" covered with timber. There were no fires in this reserve during the past year.

Algonquin National Park contains an area of 2,741 square miles. There was one serious fire in it during the past summer.

RAILWAYS.

There was a staff of firerangers on the Transcontinental, the T. & N. O., the Canadian Northern and the Algoma Central. No serious fires occurred except in the Algonquin Park already referred to, and greater care is being exercised from year to year to prevent the spread of forest fires from railways.

The Department endeavored to obtain this year the percentage of fires that took place—small and great—the number that were suppressed by rangers and the causes of the fires. Our reports indicate that altogether there were 2,296 fires occurred during the season. Of this number 2,266 did no damage to timber. Of the total number 2,181 were reported by rangers patrolling railway lines—nearly all the fires being extinguished before they had a chance to spread. Of the causes of the fires 69 per cent. is ascribed to railway engines and railways; 7 per cent. to settlers; 7 per cent. to campers, hunters, fishers and careless smokers, and 17 per cent. to causes which were not ascertained.

There was from one million and a half to two million feet of pine damaged, together with considerable quantities of young pine, birch, spruce and basswood.

On the lands under license, 91 fires were reported: 69 per cent. of which did little or no damage. Ten per cent. of these were said to be caused by railways; 30 per cent. by settlers; 26 per cent. cause unknown, and there were a number of individual fires caused by fishers, section men, careless smokers and others. Only 15 or 20 fires went over areas exceeding 10 acres.

The cost of patrol of forest reserves was \$84,148.59; on railways and Crown lands \$148,079.28. The cost of extinguishing fires in forest reserves was \$2,952.07; on railways and Crown lands \$2,508.77. There are, as already stated, 325 rangers on licensed lands, the estimated cost of which would be approximately \$85,000.

CULLERS' EXAMINATIONS.

Only one cullers' examination was held during the past year, viz., at North Bay. Only seven candidates were successful at this examination, and these were duly granted certificates authorizing them to act as cullers.

(For a list of cullers who passed at this examination see Appendix 35, page 85.)

(For a complete list of licensed cullers see Minister's reports for 1911, 1912 and 1913.)

CROWN SURVEYS.

The following Crown Surveys have been concluded this year:

Township outlines in the Districts of Algoma and Sudbury.

Township of Scholfield, in the District of Algoma.

Township of Lowther, in the District of Algoma.

Township of Caithness, in the District of Algoma.

Township of Orkney, in the District of Algoma.

Township of Ebbs, in the District of Algoma.

Township of Shetland, in the District of Algoma.

Township of Talbot, in the District of Algoma.

Township of O'Brien, in the District of Timiskaming.

Part of the Township of Mattawan, District of Nipissing.

Township of Stirling, in the District of Thunder Bay.

Part of the Township of Ware, District of Thunder Bay.

Part of the Township of Gorham, District of Thunder Bay.

Township of Drayton, District of Kenora.

Township outlines, District of Kenora.

Township of Malachi, District of Kenora.

Township outlines, District of Kenora.

INSTRUCTIONS WERE GIVEN FOR THE FOLLOWING SURVEYS.

Timber berths in the District of Kenora.

Township of Redvers, District of Kenora.

Part of the Township of Fraleigh, District of Thunder Bay.

Township of Upsala, District of Thunder Bay.

Survey in the Township of Beaumont, District of Sudbury.

Survey in the Mississaga forest reserve, District of Algoma.

Verification survey in the Township of Matchedash in the County of Simcoe, and Baxter and Wood, District of Muskoka.

Reports of the surveys so far as received and examined will be found in appendices 16 to 34 inclusive, pages 48 to 85.

MUNICIPAL SURVEYS.

On the petition of the Municipal Council of the Town of Oakville, instructions were issued to survey the boundaries or limits of certain parts of the following public highways in the Town of Oakville, namely, Dundas Street from the north-west limit of Sumner Street to the south-easterly limit of the right of way lands of the Grand Trunk Railway Company, and the "6th line road" from the westerly limit of Dundas Street aforesaid to the said right of way lands of the Grand Trunk Railway Company, and to fix the boundaries or limits thereof by durable monuments, to mark the proper lines of the above streets and roads.

Also on the petition of the Municipal Council of the City of Hamilton, instructions were issued to define the limits of Burlington Street in the City of Hamilton by durable monuments planted at the intersections of the base line or Burlington Street with James Street, Hughson Street, John Street, Catharine Street, Mary Street and Ferguson Avenue.

Also on the petition of the Municipal Council of the City of Port Arthur, instructions were issued to survey certain streets in the City of Port Arthur in the District of Thunder Bay, including North and South Water Streets, Cumberland Street, Court Street, and Algoma Street and all intersecting streets between John Street and McVicar Street, and to have the corners of the streets marked by iron bars duly planted thereat.

Also on the petition of the Municipality of Wolfe Island in the County of Frontenac, instructions were issued to survey the road allowance between the 3rd and 4th concessions south of the base line in the township of Wolfe Island in the County of Frontenac, across lots 8, 9 and 10, or as much farther on either side as may be necessary to find an original post and to plant durable monuments at the angles of the above lots.

Also on the petition of the Municipal Council of the town of Port Credit, instructions were issued to survey part of the town plot of Port Credit in the County of Peel, lying south-west of the River Credit and north-east of Joseph Street in the said village and to plant stone or other durable monuments at the front and rear angles of the blocks lying in that part of the village, as shown on annexed plan, pursuant to the provisions of the Surveys Act.

Also on the petition of the Municipal Council of the township of Ross, instructions were issued to survey the road allowance between concessions two and three, in the Township of Ross, from the proof line between lots ten and eleven south-easterly to Olmstead Lake, and to mark said road allowance by permanent monuments.

The following Municipal Surveys have been confirmed under the provisions of the Revised Statutes of Ontario, 1897, Chapter 181, Sections 14 and 15, such surveys being final and conclusive.

Survey of the boundary road allowance between the townships of Osnabruck and Cornwall and to have the said boundary marked by permanent stone or iron monuments at the expense of the municipality of the township of Osnabruck, in the County of Stormont.

Also the survey of the boundaries or limits of certain parts of the following public highways in the town of Oakville, namely, Dundas Street from the north-west limit of Sumner Street to the south-easterly limit of the right of way lands of the Grand Trunk Railway Company, and the "6th line road" from the westerly limit of Dundas Street aforesaid to the said right of way lands of the Grand Trunk Railway Company, and to fix the boundaries or limits thereof by durable monuments, to mark the proper lines of the above streets and roads.

Also the survey defining the limits of Burlington Street in the City of Hamilton by durable monuments planted at the intersections of the base line or Burlington Street with James Street, Hughson Street, John Street, Catharine Street, Mary Street and Ferguson Avenue.

Particulars relating to these surveys will be found in appendices 14 and 15, pages 46 and 47.

W. H. HEARST,
Minister.

Department of Lands, Forests and Mines,
Toronto, October 31st, 1914.

APPENDICES

Appendix No. 1.

Return of Officers and Clerks of the Department of Lands, Forests and Mines for the year ending October 31st, 1914.

Branch.	Name.	Designation.	When appointed.	Salary per annum.	Remarks.
	Hon. W. H. Hearst.....	Minister	1911, Oct. 12.....	\$ c. 6,000 00	Also Prime Minister from October 2, 1914.
	Aubrey White	Deputy Minister	1882, Jan. 1.....	4,400 00	
	Geo. Kennedy	Law Clerk	1872, Feb. 1.....	2,900 00	
	C. C. Hele	Minister's Secretary	1912, Jan. 23.....	1,800 00	
	E. S. Williamson	Secretary to Department	1889, May 1.....	1,950 00	
	Janet Garvie	Clerk	1905, Jan. 1.....	825 00	
	James Farrington	Stenographer	1910, Dec. 14.....	800 00	
Sales and Free Grants	J. J. Murphy	Chief Clerk	1872, May 1.....	2,300 00	
	Walter C. Cain	Clerk of Free Grants	1903, March 6.....	1,750 00	
	W. R. Ledger	Clerk	1894, Feb. 5.....	1,450 00	
	Selby Draper	do	1903, Jan. 1.....	1,350 00	
	S. A. Platt	do	1907, March 13.....	1,100 00	
	F. Lucas	do	1909, March 24.....	1,100 00	
	F. Samuels	do	1909, March 24.....	925 00	
	W. B. Baines	do	1912, Oct. 5.....	950 00	
	May Bengough	Stenographer	1896, Oct. 23.....	750 00	
	Jean C. Oram	do	1907, Jan. 16.....	725 00	
	Nan McQueen	do	1909, March 24.....	725 00	
	H. E. Johnston	Chief Clerk	1907, March 13.....	1,600 00	
	E. F. O'Neill	Stenographer	1904, Nov. 9.....	725 00	
Military Grants. {	G. B. Kirkpatrick	Director of Surveys	1866, Jan. 30.....	2,700 00	
	L. V. Rorke	Surveyor and Draughtsman.	1909, May 1.....	2,600 00	
	James Hutcheon	Assistant Surveyor and Draughtsman	1913, May 20.....	2,150 00	
	W. F. Lewis	Clerk	1872, May 5.....	1,400 00	
	D. G. Boyd	Draughtsman	1897, Sept. 27.....	1,650 00	
	E. M. Jarvis	Clerk	1904, Oct. 19.....	1,400 00	
	J. B. Proctor	do	1897, Jan. 15.....	1,200 00	
	H. Treeby	Draughtsman	1904, Jan. 13.....	1,250 00	
	John Work	do	1911, March 3.....	1,250 00	
	F. E. Blanchet	do	1907, March 13.....	1,100 00	
Surveys.....	A. Leaman	do	1909, March 24.....	1,100 00	

Patents.....	B. Rushford	Draughtsman.....	1912, Oct. 5.....	1,000 00
	M. H. Kirkland.....	Stenographer	1904, Nov. 23.....	725 00
	E. G. Halliday	do	1909, March 24.....	725 00
	E. C. Arner	do	1911, March 3.....	625 00
	B. Benson	do	1911, March 3.....	625 00
Woods and Forests.....	C. O'Connor	do	1911, March 3.....	625 00
	C. S. Jones	Chief Clerk	1890, May 22.....	2,050 00
	C. E. Burns	Clerk	1900, April 9.....	1,450 00
	W. S. Sutherland	do	1902, Jan. 13.....	1,350 00
	W. Carrell	do	1904, Jan. 15.....	1,250 00
Accounts.....	A. E. Robillard.....	do	1894, May 8.....	1,000 00
	A. E. Roe	do	1909, March 24.....	1,250 00
	J. A. G. Crozier	Chief Clerk	1867, Dec. 1.....	2,300 00
	J. B. Cook	Clerk	1898, Aug. 1.....	1,750 00
	H. Gillard	do	1900, April 9.....	1,500 00
Forestry.....	F. J. Niven	do	1903, March 6.....	1,350 00
	W. F. Trivett	do	1904, Jan. 13.....	1,300 00
	R. H. Hodgson	do	1904, Nov. 23.....	1,200 00
	J. Houser	do	1907, March 13.....	1,400 00
	A. H. O'Neill	do	1909, March 24.....	1,000 00
Bureau of Mines	G. W. Harris	do	1909, March 24.....	1,000 00
	N. L. Rogers	do	1911, Nov. 1.....	950 00
	S. D. Meeking	do	1910, June 1.....	900 00
	A. P. Saunders	do	1913, April 30.....	850 00
	Amy Thompson.....	Stenographer	1909, March 24.....	775 00
Bureau of Mines	M. E. Bliss	do	1909, Sept. 1.....	700 00
	D. G. Ross	Accountant	1861, April 15.....	2,550 00
	H. M. Lount	Clerk	1904, Jan. 13.....	1,550 00
	C. J. Clarke	do	1907, March 13.....	1,150 00
	R. R. Gordon	do	1913, April 30.....	850 00
Bureau of Mines	C. Bowland	Clerk and Stenographer.....	1911, March 3.....	700 00
	F. Yeigh	Registrar	1880, March 1.....	1,600 00
	Chester Dies	Clerk	1907, March 13.....	1,250 00
	E. J. Zavitz	Director	1912, Nov. 7.....	2,600 00
	F. S. Newman	Assistant Director	1913, Sept. 22.....	1,600 00
Bureau of Mines	Julia Bald	Stenographer	1914, Oct. 28.....	600 00
	Thos. W. Gibson	Deputy Minister	1891, June 19.....	4,000 00
	R. D. Fisher	Secretary	1907, March 13.....	1,350 00

Appendix No. 1.—*Concluded.*

Return of Officers and Clerks of the Department of Lands, Forests and Mines for the year ending October 31st, 1914.

Branch.	Name.	Designation.	When appointed.	Salary per annum.	Remarks.
Bureau of Mines	W. H. Morris	Clerk	1906, Jan. 1.....	\$ 1,150 00	Transferred to Mining Commissioner's Office, Oct. 9th, 1914.
	W. Lemoine	do	1908, April 8.....	1,150 00	
	A. Burritt	do	1908, April 8.....	1,150 00	
	D. H. Barr	do	1907, March 13...	1,150 00	
	Anne Moffatt	do	1907, March 13...	1,150 00	
	A. G. Scovell	do	1907, March 13...	1,100 00	
	C. W. St. John	do	1909, March 24...	1,050 00	
	Ethel Craig	do	1910, April 14....	1,000 00	
	Flossie McDougall	Clerk and Stenographer....	1906, May 16....	800 00	
	J. L. McNaughton	do	1907, March 13...	725 00	
.	H. W. Batchelor	Stenographer	1909, March 24...	750 00	
		do	1911, Dec. 19....	650 00	
	H. Brophy	Messenger	1898, Oct. 1.....	925 00	

D. GEO. ROSS,
Accountant.AUBREY WHITE,
Deputy Minister of Lands and Forests.

Appendix No. 2.

List of Land Agents and Homestead Inspectors for the year ending October 31st, 1914.

Name.	Post office address	District or county.	Date of appointment.	Salary per annum.	Remarks.
Anderson, T. V.....	Hearst.....	Part District of Algoma.....	1913, May 9..	\$ 500 00	c.
Baker, R. H.....	Minden.....	Part of Victoria	1907, Oct. 1..	350 00	
Barr, Jas.....	Fort Frances.....	Homestead Inspector	1906, Nov. 23.	1,200 00	
Bastien, J. A.....	Chelmsford.....	Homestead Inspector	1913, May 2..	600 00	
Bolger, J. W.....	New Liskeard....	Lake Temiskaming District of Nipissing...	1913, July 17.	700 00	
Both, Chas.....	Denbigh.....	Part of Frontenac and Addington.....	1905, Oct. 20.	200 00	
Brown, J. B.....	Bracebridge.....	Homestead Inspector and Crown Land Agent	1905, July 28.	1,000 00	
Byers, R. J.....	Massey.....	Part District of Sudbury	1905, July 3..	500 00	
Buchanan, T.....	Thessalon.....	do do Algoma	1901, Nov. 30.	300 00	
Burrows, W. A.....	Port Arthur.....	do do Thunder Bay	1912, Jan. 30.	700 00	
Burnes, C. W.....	Sundridge.....	Homestead Inspector	1905, Nov. 15.	900 00	
Cameron, Wm.....	Stratton Station..	Part District of Rainy River.....	1911, April 27	500 00	
Campbell, I. M.....	Parry Sound.....	do do Parry Sound	1914, Nov. 15.	500 00	
Cragg, W. V.....	New Liskeard....	Homestead Inspector	1913, April 1..	1,200 00	
Dean, Thos.....	Sault Ste Marie..	do	1908, July 29.	600 00	
Dempsey, S. J.....	Cochrane.....	Part of District of Nipissing	1911, Feb. 1..	600 00	
Douglas, W. J.....	Greenview.....	do Hastings	1912, June 1..	500 00	
Ellis, H. J.....	Powassan.....	do District of Parry Sound	1909, May 20.	500 00	
Freeborn, Dr. J. S..	Magnetawan.....	do do do	1905, Nov. 10.	500 00	
Ginn, F. E.....	Matheson.....	do do Nipissing	1912, March 20	600 00	
Hales, W.....	Apsey.....	do County of Peterboro	1911, July 17.	250 00	
Hayes, G.....	Dryden.....	District of Rainy River	1914, June 1..	500 00	
Hollands, C. J.....	Fort Frances.....	Part Township of Alberta and part District of Rainy River	1892, Oct. 12..	300 00	
Hughes, Thos.....	Murillo.....	Homestead Inspector	1908, July 20.	800 00	
Jenkin, Wm.....	Emsdale.....	Part of District of Parry Sound.....	1908, July 29.	500 00	
Langlois, E.....	Warren.....	do do Sudbury	1911, April 4.	500 00	
Lemieux, J. A.....	Bleazard Valley..	do do do	1908, July 1..	400 00	
MacLennan, J. K....	Sudbury.....	do do do	1905, July 3..	500 00	
McFayden, A.....	Emo.....	do do Rainy River	1905, Sept. 8..	500 00	

Appendix No. 2.—Concluded.

List of Land Agents and Homestead Inspectors for the year ending October 31st, 1914.—Concluded.

Name.	Post office address	District or county.	Date of appointment.	Salary per annum.	Remarks.
Mulvaney, N.....	Espanola Station.	Part of District of Algoma	1912, June 1..	\$ 200 00	Resigned Aug. 31st, 1914.
Noble, E.....	Sault Ste. Marie	do do	1913, Feb. 1..	300 00	
Parsons, W. J.....	North Bay.....	do do	1908, April 8.	500 00	
Philon, J. A.....	Sturgeon Falls..	do do	1907, Sept. 13.	500 00	
Powell, F. R.....	Parry Sound.....	do do	1907, May 31.	500 00	Resigned March 31st, 1914.
Prince, A.....	Wilno.....	do Renfrew	1905, July 12.	500 00	
Pronger, R. H.....	Dryden.....	District of Rainy River	1906, May 7..	500 00	Resigned June 1st, 1914.
Quenneville, I.....	Sturgeon Falls..	Homestead Inspector	1906, May 7..	600 00	
Small, R.....	Mattawa.....	Part District of Nipissing	1910, June 30.	500 00	
Smith, Dalton.....	Cochrane.....	Homestead Inspector	1912, April 16	1,000 00	
Spry, W. L.....	Kenora.....	Part District of Rainy River	1909, Sept. 21	400 00	Also Mining Recorder.
Watson, T. P.....	Englehart.....	Homestead Inspector	1905, May 10.	1,000 00	
Watt, F.....	Pembroke.....	Part of Renfrew	1913, May 28.	300 00	
Wilson, James.....	Kimnount.....	do Peterboro	1905, May 31.	175 00	
Whybourne, W. E.....	Marksville.....	do St. Joseph Island	1905, April 7.	250 00	
Woollings, J.....	Englehart.....	do District of Nipissing	1908, June 30.	600 00	

D. GEO. ROSS,

Accountant.

AUBREY WHITE,

Deputy Minister of Lands and Forests.

Appendix No. 3.

Statement of Lands Sold and Leased. Amount of Sales and Leases and Amount of Collections for the year ending October 31st, 1914.

Service.	Acres sold and leased.	Amount of sales and leases.	Collection on sales and leases.
<i>Lands Sold:</i>		\$ c.	\$ c.
Agricultural and Townsites.....	137,666.06	98,030 68	83,529 50
Mining	17,383.53	43,763 31	41,027 50
Clergy.....	447	256 50	1,367 56
Common School			4,978 03
Grammar School	25	43 75	957 91
University	6,047	3,023 50	2,498 74
<i>Lands Leased:</i>			
Mining	5,837.61	5,837 61	16,469 76
Crown	7,555.22	5,749 06	40,755 48
	174,961.42	\$156,704 41	\$191,584 48

D. GEO. ROSS,
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AUBREY WHITE.
Deputy Minister of Lands and Forests.

Appendix No. 4.

Statement of Revenue of the Department of Lands, Forests and Mines for the year ending October 31st, 1914.

Service.	\$ c.	\$ c.	\$ c.
LAND COLLECTIONS.			
<i>Crown Lands:</i>			
Agricultural	81,418 82		
Townsites	2,110 68	83,529 50	
Mining		41,027 50	
		124,557 00	
Clergy Lands	1,367 56		
Common School Lands	4,978 03		
Grammar School Lands	957 91		
University Lands	2,498 74	9,802 24	
<i>Rent:</i>			
Mining Leases	16,469 76		
Crown Leases	40,755 48	57,225 24	
Miners' Licenses	34,160 55		
Permits	860 00		
Recording Fees	29,174 71	64,195 26	
Royalties		74,685 11	
<i>Supplementary Revenue:</i>			
Acreage Tax	10,046 41		
Profit Tax	272,610 89		
Gas Tax	24,204 10	306,861 40	
			637,326 25
WOODS AND FORESTS.			
Bonus		454,167 24	
Timber Dues		1,112,480 38	
Ground Rent		103,910 31	
Transfer Fees		4,330 00	1,674,887 93
Provincial Assay Fees	361 52		
Casual Fees	755 68		
Cullers' Fees	116 15	1,233 35	
Algonquin Park	4,831 28		
Quetico Provincial Park	254 84		
Forest Reserves	730 50	5,816 62	
			7,049 97
REFUNDS.			
Fire Ranging		18,437 47	
Wood Ranging		2,421 00	
Estimating Timber Berths		350 00	
Agents' Salaries		88 50	
Mining Recorders		62 00	
Surveys		23 94	
Bureau of Mines		6 00	
Northern Development		4 01	
			21,392 92
			\$2,340,657 07

D. GEO. ROSS,
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AUBREY WHITE,
Deputy Minister of Lands and Forests.

Appendix No. 5.

Statement of Receipts of the Department of Lands, Forests and Mines for the year ending October 31st, 1914, which are considered as Special Funds.

Service.	\$ c.	\$ c.
<i>Clergy Lands.</i>		
Principal.....	878 00	
Interest.....	489 56	
		1,367 56
<i>Common School Lands.</i>		
Principal.....	1,842 23	
Interest.....	3,135 80	
		4,978 03
<i>Grammar School Lands.</i>		
Principal.....	536 43	
Interest.....	421 48	
		957 91
<i>University Lands.</i>		
Principal.....	2,240 83	
Interest.....	257 91	
		2,498 74
		\$9,802 24

D. GEO. ROSS,
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AUBREY WHITE,
Deputy Minister of Lands and Forests.

Appendix No. 6.

Statement of Disbursements of the Department of Lands, Forests and Mines for the year ending October 31st, 1914.

Service.	\$	c.	\$	c.	\$	c.
AGENTS' SALARIES AND DISBURSEMENTS.						
<i>Land, \$16,885.77.</i>						
Anderson, T. V.	500	00				
Disbursements	17	26				
			517	26		
Baker, R. H.	350	00				
Disbursements	4	25				
			354	25		
Both, C.			158	33		
Bolger, J. W.	632	59				
Disbursements	74	62				
			707	21		
Brown, J. B.	966	67				
Disbursements	303	15				
			1,269	82		
Buchanan, T.			300	00		
Burrows, W. A.	650	00				
Disbursements	106	65				
			756	65		
Byers, R. J.	500	00				
Disbursements	5	14				
			505	14		
Cameron, W.	500	00				
Disbursements	56	55				
			556	55		
Campbell, Miss I. M.	291	67				
Disbursements	22	00				
			313	67		
Dempsay, S. J.	600	00				
Disbursements	33	40				
			633	40		
Douglas, W. J.	500	00				
Disbursements	23	50				
			523	50		
Ellis, H. J.			500	00		
Freeborn, Dr. J. S.	500	00				
Disbursements	14	35				
			514	35		
Ginn, F. E.	600	00				
Disbursements	94	05				
			694	05		
Hales, W.			250	00		
Hayes, G.			208	34		
Hollands, C. J.			300	00		
Jenkin, W.	500	00				
Disbursements	8	32				
			508	32		
Langlois, E.	500	00				
Disbursements	7	20				
			507	20		
Lemieux, J. A.			400	00		
MacLennan, J. K.	500	00				
Disbursements	42	15				
			542	15		
<i>Brought forward</i>						
			11,020	19		

Appendix No. 6.—Continued.

Service.	\$	c.	\$	c.	\$	c.
<i>Brought forward</i>			11,020	19		
AGENTS' SALARIES AND DISBURSEMENTS.—Continued						
<i>Land.—Concluded.</i>						
McFayden, A.	500	00				
Disbursements	89	44				
			589	44		
Mulvaney, N.	133	33				
Disbursements	8	65				
			141	98		
Noble, E.			300	00		
Parsons, W. J.	500	00				
Disbursements	17	50				
			517	50		
Phillion, J. A.	500	00				
Disbursements	19	57				
			519	57		
Powell, F. R.	208	33				
Disbursements	8	50				
			216	83		
Prince, A.	500	00				
Disbursements	15	50				
			515	50		
Pronger, R. H.	250	00				
Disbursements	43	80				
			293	80		
Small, R.	500	00				
Disbursements	15	75				
			515	75		
Spry, W. L.	400	00				
Disbursements	443	50				
			843	50		
Watt, F.			300	00		
Whybourne, W. E.	250	00				
Disbursements	9	95				
			259	95		
Wilson, J.	175	00				
Disbursements	13	51				
			188	51		
Woollings, J.	600	00				
Disbursements	63	25				
			663	25		
<i>Homestead Inspectors, \$11,911.29.</i>						
Barr, J.	1,200	00				
Disbursements	1,211	80				
			2,411	80		
Bastien, J. A.	600	00				
Disbursements	318	10				
			918	10		
Burnes, C. W.	900	00				
Disbursements	480	06				
			1,380	06		
Cragg, W. V.	1,200	00				
Disbursements	385	48				
			1,585	48		
Dean, T.	600	00				
Disbursements	27	90				
			627	90		
<i>Carried forward</i>			23,809	11		

Appendix No. 6.—Continued.

Service.	\$ c.	\$ c.	\$ c.
<i>Brought forward</i>		23,809 11	
<i>AGENTS' SALARIES AND DISBURSEMENTS.—Continued</i>			
<i>Homestead Inspectors.—Concluded.</i>			
Hughes, T.	800 00		
Disbursements	529 20	1,329 20	
Quenneville, I.	600 00		
Disbursements	150 20	750 20	
Smith, D.	1,000 00		
Disbursements	440 75	1,440 75	
Watson, T. P.	1,000 00		
Disbursements	467 00	1,467 80	
<i>Timber, \$30,826.48.</i>			
Bremner, G.	1,241 66		
Disbursements	334 65	1,576 31	
Christie, W. P.	1,600 00		
Disbursements	372 19	1,972 19	
Hawkins, S. J.	1,500 00		
Disbursements	433 13	1,933 13	
Henderson, C.	1,800 00		
Webster, W. A., Assistant	1,600 00		
Disbursements	512 87	3,912 87	
Johnson, S. M.	1,600 00		
Disbursements	205 03	1,805 03	
MacDonald, S. C.	1,600 00		
Disbursements	263 35	1,863 35	
Margach, W.	1,600 00		
Legris, J., Assistant	1,300 00		
Disbursements	2,083 47	4,983 47	
Maughan, J.	1,500 00		
Disbursements	432 59	1,932 59	
McDonald, H.	1,500 00		
Disbursements	400 68	1,900 68	
McDougall, J. T.	1,600 00		
Disbursements	464 29	2,064 29	
Oliver, J. A.	1,500 00		
Penfold, G. S., Clerk	800 00		
Disbursements	603 67	2,903 67	
Stevenson, A.	1,500 00		
Disbursements	696 00	2,196 00	
Watts, G.	1,500 00		
Disbursements	282 90	1,782 90	
<i>Carried forward</i>		59,623 54	

Appendix No. 6.—Continued.

Service.	\$	c.	\$	c.	\$	c.
<i>Brought forward</i>			59,623	54		
AGENTS' SALARIES AND DISBURSEMENTS.—Concluded						
<i>Miscellaneous, \$2,707.60.</i>						
Alcock, G. H., Inspecting Lots in Township Melick			21	00		
Ames, D. H., Caretaker Islands in Dog and Laboria Lakes			20	00		
Bilton, G., Caretaker Islands in North and South Crosby			25	00		
Guthrie, W., Caretaker Islands in Devil's Lake			25	00		
Galbraith, W., Inspecting Island of Ketura in Lake Muskoka			19	50		
Margach, J. A., Inspecting Location LK16			13	95		
Moran, A., Inspecting Lots in Township of Burns			415	00		
McArthur, T. A., Inspector of Agencies	600	00				
Disbursements	521	65				
			1,121	65		
Stewart, J. A., Inspection of Townships Marquis, Otto, Pacaud and Evelyn			685	45		
Wigle, R. G., Inspecting various Lots			361	05		
					62,331	14
OTTAWA AGENCY.						
Darby, E. J., Agent			1,500	00		
Larose, S. C., Clerk			1,000	00		
Rent	508	33				
Disbursements	103	04				
			611	37		
WOOD RANGING.						
					3,111	37
Allan, Geo.			114	00		
Allen, R. A.			840	00		
Ansley, W. E.			855	00		
Arnell, Wm.			1,080	00		
Atcheson, Ira M.			570	00		
Bailey, S. I., Inspecting Location LK16	1,481	25				
Disbursements	137	90				
			1,619	15		
Barrett, Thos.			910	00		
Bates, R.			620	00		
Bedard, L.			129	00		
Beddome, W. E.			512	00		
Binnie, T.			736	00		
Bliss, L. E., Inspecting Location LK16	910	00				
Disbursements	808	26				
			1,718	26		
Boland, A. G., Inspecting Location LK16	910	00				
Disbursements	264	89				
			1,174	89		
Boyer, Geo.			81	00		
Buchanan, R.			191	25		
Buie, D.			622	73		
Buisson, Wm.			665	00		
Butterfield, J.			468	75		
Callaghan, T.			664	00		
Cameron, R.			408	00		
Cameron, J.			891	25		
Campbell, John			415	00		
Carlson, C.			65	00		
Carmichael, S.			177	00		
			15,527	28		
<i>Carried forward</i>					65,442	51

Appendix No. 6.—Continued.

Service.	\$ c.	\$ c.	\$ c.
<i>Brought forward</i>		15,527 28	65,442 51
WOOD RANGING.— <i>Continued.</i>			
Carnfel, D.		324 75	
Carter, G.		516 00	
Castonguay, A. C.		975 00	
Caswell, G.		207 00	
Charette, H.		456 00	
Chenier, D. A.		995 00	
Christie, W. P. Disbursements.		12 85	
Clark, W. R.		560 00	
Cloud, Wm.		369 00	
Comer, B. F.		496 00	
Conture, Dan.		156 00	
Corrigan, R. T.		1,050 00	
Coones, R.		331 00	
Coyne, Phin.		770 00	
Cross, R. J.		516 00	
Currie, J. E.		156 00	
Didier, H.		1,235 00	
Dougherty, J. M.		60 00	
Durrell, Wm.		1,230 00	
Duval, C. A.		715 00	
Eaton, C. Disbursements.		232 50	
Eaton, L.		190 50	
Edye, W. K.		448 00	
Elliott, Wm.		516 25	
Fairbairn, N. H.		44 00	
Faulkner, J.		455 00	
Faulkner, W.		296 00	
Ferguson, E. A.		1,040 00	
Fiddes, J.		328 00	
Fisher, Geo.		1,019 00	
Fraser, W. A.		905 00	
Fraser, D.		865 00	
Fraser, T.		120 00	
Frechette, O.	1,040 25		
Disbursements	75 90		
		1,116 15	
Frechette, E.		344 25	
Gamey, W. H.		695 00	
Gill, C.	676 00		
Disbursements	18 25		
		694 25	
Gilligan, E.		1,550 00	
Gordon, J. B.		45 00	
Gravelle, F.		312 75	
Griffith, Thos. Disbursements		158 15	
Hagan, E. G.		630 00	
Harkins, J. J.		352 00	
Hartley, Chas.		1,090 00	
Henderson, Chas. Disbursements.		1,499 01	
Henderson, A.		972 25	
Hey, Ben.		392 00	
Huckson, A. H.	645 00		
Disbursements	117 81		
		762 81	
Hurdman, W. H.		350 00	
Hutton, John		1,095 00	
Irving, E.		504 00	
Jean, A.		381 00	
Johnston, T.		1,224 00	
<i>Carried forward</i>		47,284 75	65,442 51

Appendix No. 6.—Continued.

Service.	\$ c.	\$ c.	\$ c.
<i>Brought forward</i>		47,284 75	65,442 51
<i>WOOD RANGING.—Continued.</i>			
Kay, A.		296 00	
Kearney, D.		102 00	
Kelly, F.		55 00	
Lamore, P.		172 50	
Leblanc, O.		300 00	
Leblanc, E.		419 25	
Lee, J. B.		925 00	
Leroy, L. H.		240 00	
Linklater, John		125 00	
Lockhart, W. H.		32 50	
Long, H. E.		910 00	
Lowe, W. C.		360 00	
MacDonald, S. C. Disbursements.		16 04	
Macdonell, R. D.		745 00	
Manice, Wm.		1,090 00	
Mann, John		500 00	
Margach, Wm. Disbursements.		846 75	
Margach, J. A.	961 00		
Disbursements	56 75		
		1,017 75	
Marr, H. S.		576 00	
Martin, E.		444 00	
Maughan, J. Disbursements.		29 40	
Menzies, A.		1,565 00	
Merchant, J.		294 00	
Milway, J. H.		1,560 00	
Misservia, T.		56 25	
Molyneaux, G.		725 00	
Montroy, J. J.		28 00	
Mooney, L.	1,792 00		
Disbursements	353 13		
		2,145 13	
Moran, A.		230 00	
Morel, H., Jr.		767 00	
Morin, D.		180 00	
Mulligan, J.		111 00	
Murphy, P.		111 00	
Murray, Wm.		1,520 00	
McAuley, W. D.		706 73	
McCaw, J. G.		1,560 00	
McDonald, J. D.	1,605 00		
Disbursements	29 55		
		1,634 55	
McDonald, T.	1,494 00		
Disbursements	17 55		
		1,511 55	
McDonald, H. Disbursements.		737 57	
McDougall, J. T. Disbursements.		268 33	
McGregor, C. F.		635 00	
McGregor, Wm.		555 00	
McGillivray, D. D.		280 00	
McIvor, J. A.		936 00	
McIntyre, Robt.		75 00	
McInnis, A. D.	1,491 25		
Disbursements	36 90		
		1,528 15	
McKendry, W. B.		825 00	
McKenley, J. H.		345 00	
<i>Carried forward</i>		77,377 20	65,442 51

Appendix No. 6.—Continued.

Service.	\$ c.	\$ c.	\$ c.
<i>Brought forward</i>		77,377 20	65,442 51
<i>WOOD RANGING.—Continued.</i>			
McLean, J.	670 00		
Disbursements	102 95		
		772 95	
McLean, J. D.	366 00		
Disbursements	4 85		
		370 85	
McLaughlin, John		468 00	
McNabb, A.		1,040 00	
McPherson, J. S.		1,360 00	
McRae D. A.		573 00	
Nevison, W. H.		648 00	
Newburn, Wm.		645 00	
Niblett, Jas.		420 00	
Nicholas, D. G.		376 00	
Norgate, C.		496 00	
Oldscamp, Geo.		123 00	
Oliver, J. A. Disbursements.		393 73	
Paul, C. A.		705 92	
Pigott, J.		840 00	
Pritchard, F.		243 25	
Purdy, John		405 00	
Reid, J. P.		210 00	
Revell, L. O.		1,555 00	
Ridley, Robt.		1,450 00	
Ritchie, J. F.		775 00	
Ritchie, A. W.		280 00	
Ross, S.		1,519 00	
Roy, O.		273 75	
Rusk, O.	880 00		
Disbursements	84 66		
		964 66	
Sanderson, D.		760 00	
Schroeder, F.		165 00	
Sharpe, Jas.		1,645 00	
Shaw, Alfred		950 00	
Shaw, D.		528 00	
Shields, F.		468 00	
Short, J.		384 00	
Simmons, A. G.		616 00	
Simpson, Wm.		1,320 00	
Smith, V.		94 50	
Smith, H. B.	145 00		
Disbursements	22 50		
		167 50	
Spaniel, A.		217 50	
Sparling, S. W.		412 00	
Spence, D.		835 00	
Spence, A.		55 00	
Stein, Paul		1,023 27	
Stewart, R.		575 00	
St. Laurent, J.		288 75	
Teasdale, J.		555 00	
Thompson, G. S.		300 00	
Thompson, W. B.	700 00		
Disbursements	176 95		
		876 95	
Thompson, J.		207 00	
Thorpe, T.		715 00	
<i>Carried forward</i>		107,443 78	65,442 51

Appendix No. 6.—Continued.

Service.	\$ c.	\$ c.	\$ c.
<i>Brought forward</i>		107,443 78	65,442 51
<i>WOOD RANGING.—Concluded.</i>			
Tipping, P.		250 00	
Urquhart, A.		985 00	
Vincent, H. T.		1,195 00	
Wallace, F.		516 00	
Watts, J. J.		440 00	
Watts, W. B.		504 00	
Webster, W. A. Disbursements		448 05	
White, A. T.		220 00	
Whelan, P. J.		1,565 00	
Williams, Fred.		142 50	
Williams, Wm.		186 00	
Wilkins, G. N.		875 00	
Wilson, D.	745 00		
Disbursements	49 60		
		794 60	
Wilson, R.		138 00	
Windle, Jas.		360 00	
Wylie, D. M.		10 00	
Young, R. J.	690 00		
Disbursements	134 71		
		824 71	
Yuill, Thos.		575 00	
Zavitz, E. J. Disbursements		30 77	
			117,503 41
<i>ESTIMATING FOREST RESERVES.</i>			
Cloud, Wm.		90 00	
Henderson, Chas. Disbursements		321 54	
McLean, John		150 00	
McLean, James D.		90 00	
			651 54
<i>EXPLORATION AND ESTIMATION OF TIMBER BERTHS.</i>			
Henderson, Chas. Disbursements			307 85
<i>FIRE RANGING.</i>			
Adams, Alex.		352 50	
Allen, R. A.		809 00	
Allan, D. L.		294 00	
Allen, D.		330 00	
Allard, Geo.		327 50	
Aldred, O.		292 50	
Algoma Eastern Railway		87 59	
Armstrong, G.		305 00	
Armstrong, W. H.		337 50	
Armstrong, T. C.		317 50	
Arnott, Wm.		315 00	
Arnold & Bell, Limited		54 00	
Atchison, I. M.		345 00	
Atchison, J.		72 00	
Atkinson, H.		332 50	
Balley, H.		325 00	
Baker, F. P.		332 50	
Barnell, G. B.		345 00	
Bartlett, G. W. Disbursements		3,202 25	
Bartlett, Hugh		86 15	
Bartlett, Herb.		39 03	
<i>Carried forward</i>		8,901 52	183,905 31

Appendix No. 6.—Continued.

Service.	\$ c.	\$ c.	\$ c.
<i>Brought forward</i>		8,901 52	183,905 31
FIRE RANGING.—Continued.			
Behoniel, Geo.		80 00	
Bedell, E.		322 50	
Beddome, W. E.		121 00	
Beaumont, A.		300 00	
Begin, P.		341 25	
Begin, Dave		300 00	
Bellefeuille, M.		183 75	
Belanger, E.		355 00	
Belanger, E.		335 00	
Berry, Geo.		317 50	
Berrige, C. W.		322 50	
Bertrand, H.		360 00	
Biederman, Wm.		355 00	
Bisaillon, Leo.		322 50	
Bissonette, R.		317 50	
Bliss, L. E.	Disbursements.	2,030 90	
Bliss, C. L.		889 00	
Blondin, A.		285 00	
Blair, B.		6 00	
Boice, R.		69 50	
Bookhout, H.		335 00	
Boon, Isaac		77 50	
Bonter, S.		357 50	
Both, C.		277 50	
Bowins, John		360 00	
Bottrell, Dan		345 00	
Bowes, John		297 50	
Bowland, J. J.	496 00		
Disbursements	77 75		
		573 75	
Bonwell, J. V.		115 00	
Box, Bert		340 00	
Brooks, A.		470 00	
Bromley, Ed.		227 50	
Brown, A.		345 00	
Brown, Thos.		325 00	
Brown, T. E.		300 00	
Brozeau, O.		355 00	
Brum, A.	555 00		
Disbursements	133 25		
		688 25	
Brum, C.		345 00	
Brunet, A.		312 50	
Buisson, W.		145 00	
Bule, D.		212 00	
Burger, Wm.		355 00	
Burton, D. B.		335 00	
Bunting, H. T.		345 00	
Campbell, A.		335 00	
Campbell, W. L.		292 50	
Campbell, J. S.		272 50	
Campbell, D.		362 50	
Carnochan, G.		355 00	
Case, G. W.		320 00	
Cavanagh, S.		345 00	
Chambers, Thos.		295 00	
Chaloner, C.		313 50	
Chapman, W.		335 00	
<i>Carried forward</i>		27,560 42	183,905 31

Appendix No. 6.—Continued.

Service.	\$	c.	\$	c.	\$	c.
<i>Brought forward</i>			27,560	42	183,905	31
<i>FIRE RANGING.—Continued.</i>						
Chittick, W. J.			372	50		
Chenier, H.			182	50		
Christie, W. P.			345	84		
Clark, H.			332	50		
Clayton, B.			22	76		
Cluff, R. A.			292	50		
Cocoa, Alex.			297	50		
Connell, Wm.			222	50		
Coombs, R.			12	50		
Conture, D.			362	50		
Cooper, A.			345	00		
Countryman, A. G.			335	00		
Cousineau, C.			345	00		
Coyne, P.						
Disbursements	690	00				
	140	17				
			830	17		
Crombie, V.			335	00		
Crawford, R. M.			317	50		
Crumb, Ben.			155	00		
Currell, Rich.			355	00		
Currie, D. H.			302	50		
Curry, P. W. M.			290	00		
Dance, H. L.			332	50		
Dean, A.			327	50		
Deschamp, N.			345	00		
Dickson, J.			355	00		
Dial, A. C.			337	50		
Didier, L. P.			957	00		
Dixon, A. J.			307	50		
Doolittle, R.			345	00		
Doyle, Gus.			335	00		
Drake, F.			337	50		
Duff, R. A.			470	00		
Dukes, V.			335	00		
Duncan, R.			313	50		
Durnin, C.			352	50		
Dyson, W.			12	50		
Edwards, G. H.			335	00		
Ellber, Geo.			355	00		
Elliott, Jack			330	00		
Elliott, G.			334	00		
Ellis, E. C.			320	00		
Ellsworth, C. B.			345	00		
Emerson, H.			335	00		
English, M.			357	50		
Evans, C. S.			307	50		
Fairbairn, N. H.						
Disbursements	825	00				
	292	67				
			1,117	67		
Farrell, S. H.			325	00		
Favereau, Geo.			355	00		
Ferguson, T. H.			362	50		
Ferguson, Geo.			357	50		
Fitzgerald, G.			92	50		
Fitzgerald, Robt.			345	00		
Fitzbock, J.			259	50		
Fitzpatrick, P.			250	00		
Fisher, Geo.			396	00		
<i>Carried forward</i>			46,156	86	183,905	31

Appendix No. 6.—Continued.

Service.	\$	c.	\$	c.	\$	c.
<i>Brought forward</i>			46,156	86	183,905	31
FIRE RANGING.—Continued.						
Flannigan, Jas.			335	00		
Flynn, M.			337	50		
Foley Bros. and Northern Construction Co.			138	06		
Fox, W. W.			310	00		
Fraser, W. A.			332	50		
Fraser, Alex.			352	50		
Frawley, M.			267	50		
Freele, L. W. M.			335	00		
Frenette, S.			335	00		
Furry, C.			357	50		
Gagne, F.	950	00				
Disbursements	223	95				
			1,173	95		
Gagne, J.			295	00		
Gale, W. J.			387	00		
Galt, R.			332	75		
Gardner, W. T.			312	50		
Gaskill, W. T.			65	00		
Garrow, G.			350	00		
Gauld, W. H.			257	50		
Gault, Jas.			345	00		
Gauthier, Theo.			355	00		
Gemmill, J.	516	00				
Disbursements	173	65				
			689	65		
Gillanders, G.			347	50		
Gooding, S.			282	50		
Griffin, D.			315	00		
Guthrie, Wm.			355	00		
Hackett, Wm.			337	50		
Hainstock, W. A.			220	00		
Hall, T.			335	00		
Hamond, D.			322	50		
Hammond, H.			313	50		
Hammond, W. S.			245	00		
Hand, Thos.			512	00		
Hanmer, Geo.			340	00		
Hardy, F.			357	50		
Hardingham, V. C.			335	00		
Harris, E.			97	59		
Hatch, W.			68	71		
Henderson, Chas.			221	69		
Henderson, J.			327	50		
Heroux, J.			352	50		
Hicks, A.			71	99		
Higgins, R.			265	00		
Hill, J. E.			297	50		
Holman, L.			8	08		
Holmes, J. H.			327	50		
Holt, J.			320	00		
Hollis, J.			312	50		
Hopkins, R. D.			312	50		
Hourigan, C.			335	00		
Huckson, A. H.	933	33				
Disbursements	292	00				
			1,225	33		
Hudgins, W. H.			337	50		
<i>Carried forward</i>			63,319	66	183,905	31

Appendix No. 6.—Continued.

Service.	\$ c.	\$ c.	\$ c.
<i>Brought forward</i>		63,319 66	183,905 31
<i>FIRE RANGING.—Continued.</i>			
Humphreys, E.		322 50	
Hutcheson, G. T.		167 50	
Ingham, F.		322 50	
Irish, Wm.		425 00	
Jackson, W. H.		337 50	
Jackson, F. N.		355 00	
Jamieson, K.		337 50	
Jarvis, E.		317 50	
Jenkins, S.	642 00		
Disbursements	214 00		
		856 00	
Johnson, V. J.		237 50	
Johnston, W.		357 50	
Johnston, S.		285 00	
Jones, K. G.		257 50	
Judge, S. E.		165 00	
Keely, E. A.		355 00	
Kelly, T.		355 00	
Keenahan, Matt.		355 00	
Kells, L.		337 50	
Kennedy, T. A.		315 00	
Kerr, Alex.		307 50	
King's Printer		125 00	
Labbie, A.		335 00	
Lafontaine, P.		333 50	
Langford, T.		345 00	
Lanktree, J.		332 50	
Lamb, D.		345 00	
Lash, A.		195 00	
Laurin, J. A.		315 00	
Leblanc, O.		552 00	
Leblanc, F.		322 50	
Leblanc, O.		337 50	
Leblanc, R. W.		115 00	
Labelle, A.		335 00	
Leach, P.		335 00	
Leacy, J.		355 00	
Leddy, J.		322 50	
Lee, J. B.	760 00		
Disbursements	186 45		
		946 45	
Lee, E. J.		302 50	
Leggett, C.		355 00	
Lepper, R. H.		322 50	
Liddle, H.		335 00	
Linklater, W.		363 50	
Lloyd, W. H.		355 00	
Lockhart, W. H.		362 50	
Lofquist, M.		292 50	
Long, H. E.	885 00		
Disbursements	196 74		
		1,081 74	
Lougheed, C.		70 00	
Loy, R.		322 50	
Lumb, S. S.		327 50	
MacDonald, S. C.	Disbursements ..	112 10	
Macdonell, R. D.		356 00	
MacEwen, B.		335 00	
<i>Carried forward</i>		81,328 45	183,905 31

Appendix No. 6.—Continued.

Service.	\$ c.	\$ c.	\$ c.
<i>Brought forward</i>		81,328 45	183,905 31
<i>FIRE RANGING.—Continued.</i>			
MacGillivray, G.		265 00	
MacNeill, E. R.		355 00	
Mack, H.		115 00	
Mair, Wm.		330 00	
Margach, Wm.	Disbursements	1,011 09	
Margach, J. A.		488 00	
Marshall, F. R.		300 00	
Marston, Wm.		315 00	
Martlin, R. F.		337 50	
Maxwell, A.		312 50	
May, H.	880 00		
Disbursements	257 46		
		1,137 46	
Merchant, J.		345 00	
Merchant, S. W.		332 50	
Mercer, G. A.		335 00	
Merritt Lumber Co.		21 00	
Miller, R.		335 00	
Molyneaux, Geo.	414 00		
Disbursements	103 50		
		517 50	
Morand, L.		355 00	
Morin, J.		355 00	
Morgan, J. H.		310 00	
Moore, Jas.		302 50	
Morris, N.		305 00	
Morris, D.		345 00	
Morrison, M. C.		315 00	
Mousseau, E.		297 50	
Mousseau, S.		297 50	
Moyles, J.		58 50	
Murphy, C.		320 00	
Myers, R. A.		317 50	
Myers, T. R.		287 50	
McAuley, W. D.		520 00	
McCadden, P.		322 50	
McCallum, A. J.		295 00	
McClellan, W. S.		337 50	
McCullough, D. J.		355 00	
McDonald, R. A.		170 00	
McDonald, A. J.		34 50	
McDonell, L. P.		345 00	
McIntyre, Peter		355 00	
McIntosh, J.		327 50	
McEwen, H.		327 50	
McKinnon, E.		335 00	
McKinnon, H.		332 50	
McKechnie, J.		335 00	
McKenzie, A.		100 00	
McKay, J. L.		87 50	
McLaughlin, John		172 50	
McLennan, D.		27 00	
McLeod, Wm.		332 50	
McLean, Dan.		297 50	
McMullen, S. J.		335 00	
McMullen, Wm.		340 00	
McNeely, M.		322 50	
McNevin, Alex.		345 00	
<i>Carried forward</i>		98,798 50	183,905 31

Appendix No. 6.—Continued.

Service.	\$ c.	\$ c.	\$ c.
<i>Brought forward</i>		98,798 50	183,905 31
<i>FIRE RANGING.—Continued.</i>			
McPhee, D. J.		197 50	
McQuinn, W. J.		315 00	
McRae, D. A.		510 00	
Neelon, G. M.		457 00	
Nelson, Nels.		192 50	
Netwegisis, A.		32 00	
Nepigon Construction Co.		53 40	
Newburn, Wm.		337 50	
Newhouse, A.		508 00	
Nevitt, J.		86 15	
Nichol, D. H.		337 50	
Nixon, W. H.		335 00	
Nockwinogis, S.		8 00	
O'Brien, M.		75 00	
O'Brien, J.		355 00	
O'Brien, Fowler and McDougall Bros.		61 49	
O'Grady, W. J.		250 00	
O'Neill, T.		297 50	
Oikle, A.		210 00	
Oliver, J. A. Disbursements.		563 76	
Ouellette, F.		335 00	
Passmore, J.		277 50	
Patterson, B.		345 00	
Paul, C.		396 00	
Pecaski, J.		145 00	
Pecks, J.		2 00	
Pelletier, Peter		185 00	
Pierce, F.		310 00	
Pigeon, C.		26 00	
Piggot, J. A.		305 00	
Pingle, Alex.		335 00	
Piper, R.		300 00	
Poulin, N.		335 00	
Porter, B.		64 61	
Powell, John		115 00	
Powell, H. G.		335 00	
Presley, J.		305 00	
Pritchard, F.		501 75	
Rabbitts, Max		889 00	
Racey, M. J.		322 50	
Ranger, A.		305 00	
Rawson, C. L.		315 00	
Redden, M. A.		357 50	
Reeve, E. M.		292 50	
Reeve, A. S.		270 00	
Renshaw, A.		307 50	
Remus, C.		345 00	
Renton, G. M.		277 50	
Reid, Robert		117 50	
Reid, C. F.		425 00	
Reveler, Mac.		315 00	
Richardson, J. S.		345 00	
Rivers, S.		302 50	
Robertson, J.		99 61	
Rochfort, A.		355 00	
Rodden, M. J.		325 00	
Roe, N.		317 50	
Rose, A.		335 00	
<i>Carried forward</i>		115,217 27	183,905 31

Appendix No. 6.—Continued.

Service.	\$ c.	\$ c.	\$ c.
<i>Brought forward</i>		115,217 27	183,905 31
<i>FIRE RANGING.—Continued.</i>			
Rousette, Jos.		115 00	
Row, James		357 50	
Rusk, O. W.	780 00		
Disbursements	2,820 07		
		3,600 07	
Ryan, T.		335 00	
Ryan, Wm.		322 50	
Sanderson, S.		335 00	
Saunders, H. A.		310 00	
Saunders, L.		265 00	
Sauve, John		327 50	
Savard, A.		317 50	
Scaffner, J.		325 00	
Schenk, N.		325 00	
Schoales, R.		335 00	
Schroeder, A.		315 00	
Scott, C. V.		295 00	
Scott, J.		145 00	
Scott, R.		520 00	
Seymour, R. F.		312 50	
Sheridon, W. E.		332 50	
Shilling, H.		551 00	
Shore, D.		355 00	
Simmons, A. F.		325 00	
Sinclair, A.		24 00	
Sloan, John		382 50	
Small, M. A.		317 50	
Smedley, A. E.		320 00	
Smellie, H.		55 00	
Smith, V.		525 00	
Smith, A.		7 30	
Smith, H.		320 00	
Smith, E. J.		332 50	
Snider, R. A.		332 50	
Solomon, J.		357 50	
Spence, A.		294 25	
Spence, D.		345 00	
Spence, C. A.		332 50	
Spreadborough, G. S.		335 00	
Spurr, Wm.		162 50	
Stark, S. W.		302 50	
Stewart, E. B.		192 50	
Stewart, Chas.		320 00	
Stewart, R.		335 00	
Stewart, C.		335 00	
Stewart, J. A.	850 00		
Disbursements	1,185 53		
		2,035 53	
Steward, W.		155 00	
Stevens, A.		327 50	
Stevens, W. J.		317 50	
Stevenson, G. H.		300 00	
Stevenson, R.		12 50	
Strathern, R.		335 00	
Sudds, D.		160 00	
<i>Carried forward</i>		135,209 42	183,905 31

Appendix No. 6.—Continued.

Service.	\$ c.	\$ c.	£ c.
<i>Brought forward</i>		135,209 42	183,905 31
<i>FIRE RANGING.—Concluded.</i>			
Sutherland, J. W.		322 50	
Superior Construction Co.		138 65	
Swanson, G.		285 00	
Swinson, C.		327 50	
Tang, John		352 50	
Taylor, C. J.		322 50	
Tibbetts, N. A.		272 50	
Tighe, T. J.		27 50	
Tillson, Andrew		185 00	
Thomas, P.		247 50	
Thompson, Ed.	399 00		
Disbursements	99 75		
		498 75	
Thompson, F. H.		327 50	
Thompson, T.		345 00	
Tooke, S.		320 00	
Toomer, S.		342 50	
Torrance, E. A.		170 00	
Tremblay, E.		330 00	
Tye, R. H.		75 00	
Urquhart, A.		468 00	
Valois, P.		330 00	
VanBowell, J.		25 00	
Wagner, Fred.		84 81	
Walker, Geo.		320 00	
Walton, H.		337 50	
Wallace, A.		315 00	
Washburn, B.		145 00	
Watts, Geo. Disbursements.		225 77	
Watt, R. S.		345 00	
Wattie, W.		61 00	
Watson, M.		166 15	
Wease, A.		310 00	
Weir, G. A.		335 00	
Welsh, Jas.		345 00	
Wendt-Wreidt, A. J.		335 00	
Western, A. H.		300 00	
West, W.		302 50	
Westra, H.		317 50	
Whaley, H.		325 00	
Whiteman, F. H.		337 50	
Whytock, H.		332 50	
Wickens, H.		313 50	
Wilkins, G. N.		508 00	
Williams, R. A.		240 00	
Williams, S. E.		340 00	
Windell, Jas.		957 00	
Wood, W. D.		132 00	
Woodcock, Geo.		295 00	
Wright, J.		357 50	
Wright, A.		285 00	
Wright, H. H.		317 50	
Yeates, R. H.		355 00	
Young, R. R.		325 00	
			150,588 05
<i>Carried forward</i>			334,493 36

Appendix No. 6.—Continued.

Service.	\$	c.	\$	c.	\$	c.
<i>Brought forward</i>					334,493	36
FOREST RESERVES.						
<i>Temagami Reserve, \$42,137.90.</i>						
Agarias, C.			315	00		
Albright, E.			317	50		
Albright, L.			210	00		
Allen, N. B.			305	00		
Armstrong, H. F.			330	00		
Axford, B. W.			315	00		
Baines, W. H.			332	50		
Barrett, Thos.	765	00				
Disbursements	588	42				
			1,353	42		
Batfien, B. N.			307	50		
Beatty, J. B.			297	50		
Bell, W. D.			315	00		
Benson, R. E.			312	50		
Benoit, E.			320	00		
Bibet, L. A.			225	00		
Bovin, H.			312	50		
Bowden, G. S.			315	00		
Briggs, A. V.			237	50		
Bulman, R. J.			315	00		
Carpenter, P. J.			185	00		
Cavill, A. H.			330	00		
Champagne, I.			315	00		
Chase, F. E.			332	50		
Chennette, J.			320	00		
Coghill, J. R.			315	00		
Coombs, F. H.			310	00		
Craig, H. A.			320	00		
Cronk, G. S.			312	50		
D'Embremont, F.			310	00		
Desroisiers, J.			277	50		
Dickson, G. J.			185	00		
Duffy, W. J.			305	00		
Dunbar, J.			315	00		
Elliott, W. J.			112	50		
Emery, G. B.			332	50		
Evans, Wm.			315	00		
Faeris, R.			1,050	50		
Fick, D. R.			197	50		
Ford, Fred.			120	00		
Forsyth, G.			302	50		
Gibson, G. A. L.			297	50		
Goodearle, W. E.			302	50		
Greenrod, S.			332	50		
Grenier, J.			315	00		
Grenier, Alex.			82	50		
Hagerman, G. A.			332	50		
Hanley, A. F.			265	00		
Haines, H.			307	50		
Harris, B. J.			67	50		
Harrison, J. W.			430	00		
Henderson, C.			10	30		
Hendrick, C. P.			332	50		
Herlihy, D.			260	00		
<i>Carried forward</i>			16,334	22	334,493	36

Appendix No. 6.—Continued.

Service.	\$ c.	\$ c.	\$ c.
<i>Brought forward</i>		16,334 22	334,493 36
<i>FOREST RESERVES.—Continued.</i>			
<i>Temagami Reserve.—Continued.</i>			
Hindson, C. E.	1,300 00		
Disbursements	995 85		
		2,295 85	
Holstein, A.		315 00	
Inderwick, C. C.		312 50	
Kearns, R. C.		315 00	
Keenan, J. T.		332 50	
Kemp, W. S.		330 00	
Kennedy, Wm.		505 00	
Kirkup, N. N.		272 50	
Lamarche, A.		912 50	
Larmour, R. R.		315 00	
Levinge, S. T.		315 00	
Lewis, S. T.		332 50	
Livingston, J.		322 50	
Lord, T. V.		315 00	
Masson, D. M.		170 00	
Maynard, W. B.		270 00	
Mohr, C. B.		300 00	
Montrueil, J.		315 00	
Moore, C. A.		305 00	
Moorehouse, C.		185 00	
Mowat, A. M. G.		310 00	
Murphy, P.		192 50	
McCart, H. M.		332 50	
McKay, A.		315 00	
McLaughlin, John		10 00	
McLean, G. R.		267 50	
McLeish, W. J.		315 00	
McLeod, J. D.		332 50	
Nadon, P.		315 00	
Nell, Wm.		315 00	
Nicholas, H.		332 50	
O'Neill, W. S.		317 50	
Papineau, W. C.		317 50	
Passmore, S.		330 00	
Perron, M.		315 00	
Petrant, Wm.		312 50	
Philpot, G. M.		332 50	
Plaunt, N.		310 00	
Pratt, D.		70 00	
Price, D. W.		332 50	
Powell, J.		315 00	
Rankin, R. W.		315 00	
Reesor, Geo.		317 50	
Reid, F. L.		295 00	
Rochon, Jos.		462 50	
Roger, W. G.		315 00	
Routhier, E.		317 50	
Russell, F.		312 50	
Sage, P.		315 00	
Sasseville, Joe		302 50	
Sharp, J. F.		315 00	
Shelton, H.		315 00	
<i>Carried forward</i>		34,642 57	334,493 36

Appendix No. 8.—Continued.

Service.	\$ c.	\$ c.	\$ c.
<i>Brought forward</i>		34,642 57	334,493 36
<i>FOREST RESERVES.—Continued.</i>			
<i>Temagami Reserve.—Concluded.</i>			
Shields, R. H.		315 00	
Simpson, T.		307 50	
Smith, E. H.		315 00	
Smith, L.		302 50	
Sparks, W. E. L.		302 50	
Sutton, F.		315 00	
Swayze, D. A.		305 00	
Vivaris, D.		912 50	
Vivaris, M.		312 50	
Warren, P. S.		297 50	
Western, C.		332 50	
Western, E. A.		277 50	
White, Joseph		315 00	
White, James		312 50	
Whitney, K. H.		302 50	
Williams, Chas.		312 50	
Willoughby, J. B.		315 00	
Wilson, B.		317 50	
Winder, A.		315 00	
Young, R. J.	710 00		
Disbursements	300 33		
		1,010 33	
<i>Metagami Reserve, \$8,127.82.</i>			
Armstrong, H. F.		147 50	
Burden, John	830 00		
Disbursements	390 32		
		1,220 32	
Gauthier, W.		345 00	
Jones, C. L.		197 50	
Lawrence, C. F.		300 00	
Lefroy, L. D.		57 50	
Logan, H.		337 50	
Marks, V. H.		345 00	
Melville, R.		342 50	
McDonald, J. A.		317 50	
McFayden, J.		337 50	
McLaughlin, J. S.		172 50	
McLennen, H.		147 50	
Navere, Thos.		190 00	
Neddry, R. J.		200 00	
Ogg, C. S.		342 50	
Patton, J.		342 50	
Perry, W. G.		317 50	
Reid, J.		380 00	
Rountree, C. S.		342 50	
Schwab, C. D.		342 50	
Tate, J.		385 00	
Taylor, W. J.		385 00	
Topp, J. V.		145 00	
Welch, L. S.		145 00	
Wickett, T. H.		342 50	
<i>Carried forward</i>		50,265 72	334,493 36

Appendix No. 6.—Continued.

Service.	\$	c.	\$	c.	\$	c.
<i>Brought forward</i>			50,265	72	334,493	36
<i>FOREST RESERVES.—Continued.</i>						
<i>Mississaga Reserve, \$20,066.19.</i>						
Acheson, L.			540	00		
Adams, W.			307	50		
Allen, Geo.			435	00		
Anderson, R. M.			272	50		
Belaney, A.			352	50		
Belanger, T.			430	00		
Bennett, J. O.			330	00		
Bickell, R. R.			336	00		
Buisson, Wm.			192	50		
Bulmer, A.			392	50		
Burden, J.			420	00		
Burden, Wm.			471	50		
Cameron, Geo.			332	50		
Causley, P.			422	50		
Dougherty, E.			342	50		
Dougherty, A. E.			325	00		
Draper, Wm.			315	00		
Duval, C. A.		935	00			
Disbursements	1,546	19				
			2,481	19		
Dyson, Isaac			322	50		
Evelene, A.			180	00		
Evelene, S.			272	50		
Featherstonehaugh, M. H.			327	50		
Flinchbaugh, A. B.			325	00		
Foreman, H. R.			312	50		
Fraser, Thos.			77	50		
Fyke, L.			330	00		
Gordon, T. S.			307	50		
Greer, D. G.			330	00		
Hamm, S. C.			210	00		
Hargrave, H. R.			297	50		
Hays, C.			392	50		
Hogarth, J.			277	50		
Jean, A.			437	50		
Knox, D.			430	00		
Leffler, R. D.			32	50		
Luke, Sam.			222	50		
Miller, N. J.			222	50		
Morel, H.			392	50		
McAuley, Robt.			330	00		
McGrath, B.			317	50		
McKenzie, Alex.			85	00		
McLaughlin, John			192	50		
Orange, W. H.			230	00		
Patterson, M.			317	50		
Pickaske, John			130	00		
Phillips, H.			280	00		
Phillips, Colin			130	00		
Phillips, Theo.			45	00		
Richardson, G. B.			182	50		
Saunders, J.			232	50		
Sawyer, E. C.			280	00		
Scott, W. W.			317	50		
Scott, J. H.			192	50		
<i>Carried forward</i>			67,926	91	334,493	36

Appendix No. 6.—Continued.

Service.	\$ c.	\$ c.	\$ c.
<i>Brought forward</i>		67,926 91	334,493 36
FOREST RESERVES.—Continued.			
Mississaga Reserve.—Concluded.			
Sherlock, A. E.		310 00	
Slater, Wm.		315 00	
Spanial, J.		125 00	
Strachnan, J. G.		292 50	
Taylor, C. N.		420 00	
Thorne, L.		30 00	
Washburn, B. L.		190 00	
Williams, Chas.		80 00	
Wilson, R. H.		317 50	
Wyatt, R. E.		325 00	
<i>Nepigon Reserve, \$13,234.90.</i>			
Backhurst, J.		37 50	
Barker, C.		352 50	
Blair, Bert		417 50	
Bliss, L. E.	765 00		
Disbursements	3,341 40		
		4,106 40	
Bouchard, J.		473 50	
Bouchard, M.		102 50	
Connell, Wm.		67 50	
Crumb, B.		170 00	
Dawkins, John		207 50	
Dawa, J. O.		102 50	
Dawa, J.		97 50	
Dier, J.		398 50	
Dixon, A. J.		45 00	
Esquago, P.		10 00	
Ferris, R. H.		357 50	
Fountain, H. A.		335 00	
Fraser, Alex.		187 50	
Gray, E. L.		355 00	
Husband, A. C.		345 00	
Hutcheson, G. F.		175 00	
Judge, S. E.		152 50	
Lafontaine, P.		77 50	
Legard, J.		80 00	
Meredith, T. R.		355 00	
Micholson, J.		395 00	
Monahan, P.		187 50	
Nelson, Nels.		62 50	
Netmegesic, F.		60 50	
Netnigesic, A.		300 00	
Nighbor, F. J.		340 00	
Nockwenoges, Luke		8 00	
Pigeon, C.		347 50	
Rae, A.		451 50	
Salsbury, M.		540 00	
Sanderson, C. E.		347 50	
Shilling, H.		87 00	
Stewart, W.		170 00	
Torrance, E. A.		185 00	
Tyrrell, Geo.		202 50	
Ward, Jas.		494 50	
Wawal, M.		47 50	
<i>Carried forward</i>		83,566 81	334,493 36

Appendix No. 6.—Continued.

Service.	\$ c.	\$ c.	\$ c.
<i>Brought forward</i>		83,566 81	334,493 36
FOREST RESERVES.—Concluded.			
<i>Eastern Reserve, \$2,828.85.</i>			
Brooks, M.		345 00	
Drysdale, Samuel		345 00	
McGregor, D.		345 00	
Smith, Chas.		345 00	
Snider, L.		345 00	
Stewart, Wm.		345 00	
Tapping, Thos.	600 00		
Disbursements	158 85		
		758 85	
<i>Sibley Reserve, \$705.00.</i>			
Hornick, Geo.		302 50	
Oliver, J. A.		100 00	
Quinn, J. J.		302 50	
			87,100 66
FORESTRY.			
Newman, F. S., travelling expenses.....		31 20	
Bell Telephone Company	32 75		
Express and cartage	65 57		
		98 32	
Supplies		2,099 97	
Labor		6,150 30	
Sundries		190 55	
			8,570 34
MINES AND MINING.			
Miller, W. G., Provincial Geologist, services.....	4,550 00		
Disbursements	421 01		
		4,971 01	
Knight, C. W., 1st Assistant Geologist, services..	2,250 00		
Disbursements	802 55		
		3,052 55	
Burrows, A. G., 2nd Assistant Geologist, services.	2,150 00		
Disbursements	436 48		
		2,586 48	
Hopkins, P. E., 3rd Assistant Geologist, services.	1,049 04		
Disbursements	418 17		
		1,467 21	
Mickle, G. R., Mine Assessor, services.....	4,000 00		
Disbursements	620 48		
		4,620 48	
Godson, T. E., Mining Commissioner, services....	4,300 00		
Dance, R. W., Mining Commissioner's Clerk,			
services	1,408 55		
Morris, W. H., Mining Commissioner's Clerk,			
services	86 26		
Disbursements	1,010 65		
		6,805 46	
Sutherland, T. F., Inspector of Mines, services...	2,500 00		
Disbursements	756 63		
		3,256 63	
Collins, E. A., 1st Assistant Inspector of Mines,			
services	2,300 00		
Disbursements	1,459 65		
		3,759 65	
<i>Carried forward</i>		30,519 47	430,164 36

Appendix No. 6.—Continued.

Service.	\$ c.	\$ c.	\$ c.
<i>Brought forward</i>		30,519 47	430,164 36
<i>MINES AND MINING.—Concluded.</i>			
McMillan, J. G., 2nd Assistant Inspector of Mines, services	2,300 00		
Disbursements	666 09	2,966 09	
Bartlett, J., 3rd Assistant Inspector of Mines, services	1,200 00		
Disbursements	910 05	2,110 05	
McKay, A. A., 4th Assistant Inspector of Mines.. Disbursements		557 35	
Rogers, W. R., Topographer, services	1,850 00		
Disbursements	38 65	1,888 65	
Bell, W. J., Cartographer, services	1,245 17		
Disbursements	250 00	1,495 17	
McArthur, T. A., Inspector of Recorders' Offices, services	700 00		
Disbursements	368 25	1,068 25	
Berry, J. W., services		55 00	
Greenland, C. W., services	303 85		
Disbursements	62 05	365 90	
Near, A. E., services	257 67		
Disbursements	81 15	338 82	
Parsons, A. L., services	423 08		
Disbursements	423 75	846 83	
Scott, John, services	658 34		
Disbursements	333 06	991 40	
Sharpe, D., services	423 67		
Disbursements	242 55	666 22	
King's Printer		88 73	
Methodist Book Room		11 11	
Express		116 20	
Sundries		68 26	
<i>MINING RECORDERS.</i>			44,153 50
Bowker, S. T., Recorder	1,000 00		
Disbursements	324 47	1,324 47	
Campbell, C. A., Recorder	900 00		
Washburn, H. C., Clerk	57 69		
Glazier, M. B., Clerk	180 00		
Young, Miss E., Stenographer	358 26		
Shanahan, Miss M., Stenographer	147 69		
Disbursements	376 20	2,019 84	
Gauthier, G. H., Recorder	1,500 00		
Graham, F. W., Clerk	1,203 85		
O'Brien, J. D., Clerk	1,023 27		
Disbursements	364 55	4,091 67	
<i>Carried forward</i>		7,435 98	474,317 86

Appendix No. 6.—Continued.

Service.	\$ c.	\$ c.	\$ c.
<i>Brought forward</i>		7,435 98	474,317 86
MINING RECORDERS.—<i>Concluded.</i>			
Hough, J. A., Recorder	1,200 00		
Browning, A. J., Clerk	1,000 00		
Glazier, M. B., Clerk	190 38		
Gardiner, Miss I. M., Stenographer.....	631 49		
Disbursements	682 55		
		3,704 42	
McQuire, H. F., Recorder	500 00		
Disbursements	152 90		
		652 90	
Morgan, J. W., Recorder	1,000 00		
Disbursements	315 80		
		1,315 80	
Sheppard, H. E., Recorder	1,000 00		
Glazier, M. B., Clerk	93 46		
Disbursements	199 60		
		1,293 06	
Skill, A., Recorder	1,200 00		
Glazier, M. B., Clerk	93 46		
Disbursements	66 26		
		1,359 72	
Smith, G. T., Recorder	2,363 44		
Sarsfield, J. M., Clerk	1,163 44		
Ferguson, L. H., Clerk.....	333 00		
Monroe, Miss E., Stenographer	760 25		
Smith, Miss M. H., Stenographer.....	579 68		
Disbursements	779 10		
		5,978 91	
Spry, W. L., Recorder	723 69		
Disbursements	20 00		
		743 69	
Express	93 09		
King's Printer	509 96		
Methodist Book Room	55 64		
		658 69	
PROVINCIAL ASSAY OFFICE.			
McNeill, W. K.	1,800 00		
Disbursements	19 04		
		1,819 04	
Rothwell, T. E.	1,168 88		
Disbursements	226 30		
		1,395 18	
Supplies		300 96	
Disbursements		74 22	
			3,589 40
CULLERS' ACT.			
Christie, W. P.	Disbursements	8 00	
McDougall, J. T.	Disbursements	11 80	
			19 80
EXPENSES NOT OTHERWISE PROVIDED FOR.			
McKay, A. A., Salary <i>re</i> Assistant Inspector of Mines		700 00	
Ellis, W. H., Salary <i>re</i> investigating Natural Gas.....		600 00	
Bartlett, J., Salary <i>re</i> Assistant Inspector of Mines		383 33	
Hendricks, G. F., Salary and Disbursements <i>re</i> Toronto Exhibition	191 85		
<i>Carried forward</i>	191 85	1,683 33	501,070 23

Appendix No. 6.—Continued.

Service.	\$ c.	\$ c.	\$ c.
<i>Brought forward</i>	191 85	1,683 33	501,070 23
EXPENSES NOT OTHERWISE PROVIDED FOR.— <i>Concluded.</i>			
Brophy, W. H., Salary <i>re</i> Toronto Exhibition....	49 50		
West, Walter, Salary <i>re</i> Toronto Exhibition.....	50 00		
Flannigan, F., Salary <i>re</i> Toronto Exhibition.....	6 75		
Byam, F., Salary <i>re</i> Toronto Exhibition.....	13 50		
Rothwell, T. E., Disbursements <i>re</i> Toronto Exhibition	9 30		
McNeill, W. K., Disbursements <i>re</i> Toronto Exhibition	30 80		
		351 70	
General Disbursements <i>re</i> Toronto Exhibition....		561 13	
			2,596 16
SURVEYS			36,496 20
BOARD OF SURVEYORS			200 00
EXPERIMENTAL TREATMENT OF ORE			35 00
REFUNDS—Miscellaneous			16,033 98
CONTINGENCIES.			
<i>Departmental.</i>			
Printing and Binding	5,296 52		
Stationery	4,912 54		
		10,209 06	
Postage	1,945 34		
Express	379 62		
		2,324 96	
Telegraphing	695 53		
Car Fare	40 00		
		735 53	
Subscriptions	253 64		
Advertising	13,555 22		
		13,808 86	
Typewriters and repairs		552 80	
Hearst, Hon. W. H., travelling expenses.....	200 00		
Newman, F. S., travelling expenses.....	62 80		
Zavitz, E. J., travelling expenses.....	67 56		
Acres, H. G., services <i>re</i> Waterways.....	313 00		
Hele, C. C., travelling expenses.....	6 65		
Teskey, J. F., valuating water lots.....	25 00		
Nesbitt, W., services <i>re</i> Petewawa Military Camp	300 00		
White, A., travelling expenses	138 10		
Hutcheon, J., travelling expenses	384 26		
Rorke, L. V., travelling expenses	6 75		
Dalton Company of Canada, Adding Machine.....	357 50		
		1,861 62	
Extra Clerks	3,859 15		
Sundries	96 50		
		3,955 65	
BUREAU OF MINES.			
Printing and Binding	1,191 49		
Stationery	1,379 09		
		2,570 58	
<i>Carried forward</i>		2,570 58	589,880 05

Appendix No. 6.—Concluded.

Service.	\$ c.	\$ c.	\$ c.
<i>Brought forward</i>		2,570 58	589,880 05
BUREAU OF MINES.—Concluded.			
Postage	493 41		
Telegraphing	212 05		
Express and Cartage	63 91		
Advertising	682 10		
Subscriptions	333 53		
Maps	649 02		
		2,434 02	
Gibson, T. W., travelling expenses	194 22		
Typewriters, repairs, etc.	72 50		
		266 72	
Nicholas, F. J., Preparing Index	110 50		
Morris, W. H., Preparing Tax Rolls.....	68 00		
Lemoine, Wm., Preparing Tax Rolls.....	68 00		
Sundries	498 47		
		744 97	
FORESTRY.			6,016 29
Zavitz, E. J., travelling expenses	120 35		
Newman, F. S., travelling expenses	174 00		
Madden, G. O., travelling expenses	15 60		
		309 95	
Bald, Miss J., services		263 33	
Postage	25 00		
Supplies	165 43		
Sundries	9 27		
		199 70	
			772 98
			\$596,669 32

D. GEO. ROSS,
Accountant.

AUBREY WHITE,
Deputy Minister of Lands and Forests.

Appendix No. 7.

Statement of Expenses on account of various Services under the direction of the Department of Lands, Forests and Mines for the year ending October 31st, 1914.

Service.	\$	c.	\$	c.	\$	c.
ALGONQUIN PARK			22,782	76		
ALGONQUIN PARK, EXTINGUISHING SQUATTERS' CLAIMS			2,000	00		
					24,782	76
QUETICO PROVINCIAL PARK					11,003	18
VETERANS' COMMUTATION					400	00
NORTHERN DEVELOPMENT						
THE MAKING OF ROADS.						
Whitson, J. F., Salary	4,208	33				
Bruce, A. E. D., do	2,303	38				
Stewart, L. D. N., do	2,499	96				
Lang, J. L., do	1,240	00				
Laird, R., do	2,355	55				
Chalmers, D., do	1,494	00				
Robinson, W. J., do	1,120	19				
Moore, J., do	1,450	00				
Mills, W. W., do	1,347	22				
Fraser, J., do	368	00				
Beardall, F. G., do	1,504	79				
Laidlaw, Miss B., do	583	00				
			20,474	42		
Wages	392,754	93				
Contracts	123,112	28				
Supplies	255,101	45				
			770,968	66		
ADVANCEMENT OF SETTLEMENT AND COLONIZATION.						
Wages	6,445	85				
Supplies	2,589	26				
			9,035	11		
Construction of Hearst Sewer			2,100	00		
					802,578	19
BOUNTY ACT VII., EDWARD VII., CAP. 14.						
Coniagas Reduction Company			28,527	36		
Deloro Mining Reduction Company			12,274	44		
Standard Smelting and Refining Co.			214	92		
					41,016	72
					\$879,780	85

D. GEO. ROSS,
Accountant.

AUBREY WHITE,
Deputy Minister of Lands and Forests.

Appendix No. 8.

WOODS AND FORESTS.

Statement of revenue collected during the year ending October 31st, 1914.

	\$	c.
Amount of Western collections at Department.....	1,511,698	09
do Belleville collections "	8,220	71
do Ottawa collections.....	154,969	13
	1,674,887	93

J. A. G. CROZIER,
Chief Clerk in Charge.AUBREY WHITE,
Deputy Minister.*Appendix No. 9.*

PATENTS BRANCH.

Statement of Patents, etc., issued by the Patents Branch from 1st November, 1913, to 31st October, 1914.

Public Lands (late Crown).....	669
" " (late School).....	27
" " (late Clergy Reserves).....	11
" " (University)	13
Free Grant Lands (Act of 1913)	448
" " " (Act of 1901) (Veterans).....	345
Mining Lands	611
Mining Leases	181
" " (University)	1
Crown Leases.....	38
Licenses of Occupation.....	21
Temagami Leases.....	1
Total.....	2,366

CHARLES S. JONES,
Chief Clerk.AUBREY WHITE,
Deputy Minister.

Appendix

WOODS AND

Statement of Timber and Amounts accrued from Timber Dues, Ground

QUANTITY AND

Agencies.	Area covered by timber licenses.	Saw logs.			
		Pine.		Other.	
	Square miles.	Pieces.	Feet B.M.	Pieces.	Feet B.M.
Western Timber District	12,502	7,826,551	287,608,122	1,590,369	45,093,416
Belleville Timber District	658½	157,591	3,522,780	324,294	9,740,027
Ottawa Timber District	4,172¾	1,298,044	71,832,292	605,993	16,409,732
	17,333	9,282,186	362,963,194	2,520,656	71,243,175

General Statement

Agencies.	Cordwood.		Tan Bark.	Railway Ties.	Cedar Posts.	Poles.	Stave Bolts.	Pulpwood.
	Hard.	Soft.						
	Cords.	Cords.	Cords.	Pieces.	Cords.	Pieces.	Cords.	Cords.
Western Timber District	18,630	25,145	3,400	5,369,562	192	8,815	2,451	104,544
Belleville Timber District	500	.....	.....	8,086	60	601	.....	.....
Ottawa Timber District	2,006	.....	779	62,197	107	8,832	.....	.....
	21,136	25,145	4,179	5,439,845	359	18,248	2,451	104,544

J. A. G. CROZIER,
Chief Clerk in Charge.

No. 10.

FORESTS.

Rent and Bonus during the year ending 31st October, 1914.

DESCRIPTION OF TIMBER.

Boom and Dimension.				Square Timber.		Piling.		Cedar.
Pine.		Other.		Pine.		Tamarac.		
Pieces.	Feet B.M.	Pieces.	Feet B.M.	Pieces.	Cubic feet.	Pieces	Ft.B.M.	Lineal feet.
145,803	10,759,518	39,153	4,126,519	2,490	114,125	838	75,943	28,225
2,300	321,735	3,782	711,763	.....	.....	.....	.....	.....
10,335	1,168,080	15,450	1,266,232	.....	.....	.....	.....	.....
158,438	18,249,333	58,385	6,104,514	2,490	114,125	838	75,943	28,225

of Timber.—Concluded.

Amounts accrued.

Trans-fer bonus.	Interest.	Trespass.	Timber dues.	Bonus.	Deposits timber sales	Ground rent.	Total.
\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.
3,905 00	3,952 33	21,668 42	1,004,034 79	397,237 48	322,975 00	69,457 68	1,823,230 70
180 00	69 62	567 30	14,338 13	875 15	.....	4,330 00	20,360 20
245 00	2,493 62	332 60	132,884 31	.....	.....	29,585 00	165,540 53
4,330 00	6,515 57	22,568 32	1,151,257 23	398,112 63	322,975 00	103,372 68	2,009,131 43

AUBREY WHITE,
Deputy Minister.

Appendix No. 11.

Statement of work done in the Military branch of the Department of Lands, Forests and Mines, during the year 1914.

References for Veteran Patents issued.....	335
Locations under military certificates.....	47
Certificates applied in payment of lands	19
Certificates surrendered for commutation money	8
Letters received	5,080
Letters written.....	4,890
Special letters to agents	650
Special letters to mining recorders.....	300
Maps and reports supplied to veterans.....	1,100
Printed forms	850
Copies of Veteran Act supplied.....	250

H. E. JOHNSTON,
Chief Clerk in Charge.

AUBREY WHITE,
Deputy Minister.

Appendix No. 12.

Statement of the number of Letters received and mailed by the Department in 1911-12, 1912-13 and 1913-14.

Year,	Letters received.					Names indexed.	Orders-in-Council.	Returned letters.	Letters, circulars and reports mailed from Department.
	Sales and Free Grants.	Surveys.	Woods and Forests.	Mines.	Totals.				
1911-12	20,050	10,150	7,700	8,750	50,407	57,000	150	76	63,125
1912-13	27,658	11,775	7,219	8,800	55,452	61,500	150	75	65,280
1913-14	25,023	11,100	8,598	8,200	52,921	59,000	125	60	64,000

FRANK YEIGH,
Registrar,

AUBREY WHITE,
Deputy Minister.

Appendix No. 13.

Statement showing the number of Locatees and of acres located; of purchasers and of acres sold; of lots resumed for non-performance of the settlement duties and of patents issued in Free Grant Townships during the year ending 31st October, 1914.

Township.	District or County.	Agent.	No. of persons located.	No. of acres located.	No. of purchasers.	No. of acres sold.	No. of lots resumed.	No. of patents issued.
Baxter	Muskoka.	J. B. Brown, Bracebridge..	4	432	4	42	3	8
Brunel	"	"	"	"	"	"	"	"
Cardwell	"	"	4	475	"	"	2	2
Chaffey	"	"	2	101	1	4	"	2
Draper	"	"	"	"	"	"	1	1
Franklin	"	"	2	196	1	4	2	3
Freeman	"	"	3	301	"	"	2	1
Macaulay	"	"	"	"	"	"	"	"
Medora	"	"	1	195	"	"	"	3
Monck	"	"	"	"	"	"	"	"
Morrison	"	"	4	630	2	4	1	5
Muskoka	"	"	3	297	3	6	3	5
McLean	"	"	3	404	"	"	3	2
Oakley	"	"	9	1,293½	"	"	9	5
Ridout	"	"	1	140	"	"	"	2
Ryde	"	"	5	721	"	"	5	2
Sherborne	"	"	1	100	"	"	"	1
Sinclair	"	"	6	738	1	½	5	1
Stephenson	"	"	"	"	"	"	"	"
Stisted	"	"	"	"	"	"	"	2
Watt	"	"	1	97	"	"	1	3
Wood	"	"	8	1,286	9	35½	8	10
Burpee	Parry Sound..	F. R. Powell, Parry Sound.	"	"	2	109	"	1
Carling	"	"	9	1,387	1	12	5	5
Christie	"	"	8	983	"	"	4	2
Conger	"	"	1	200	5	95	"	6
Cowper	"	"	"	"	1	83	"	7
Foley	"	"	1	100	1	1	1	2
Ferguson	"	"	"	"	1	200	"	2
Hagerman	"	"	4	681	4	34	3	2
Harrison	"	"	"	"	"	"	"	16
Henvey	"	"	3	306	"	"	"	3
Humphrey	"	"	1	200	"	"	2	1
McConkey	"	"	8	1,057	1	10	1	1
McDougall	"	"	4	478	1	89	3	2
McKellar	"	"	"	"	"	"	"	"
McKenzie	"	"	"	"	"	"	"	2
Monteith	"	"	4	567	1	67	6	4
Shawanaga	"	"	"	"	2	25½	1	15
Wilson	"	"	2	269	"	"	"	2
Chapman	Parry Sound .	Dr. J. S. Freeborn.	4	407	"	"	1	4
Croft	"	Magnetawan	"	"	"	"	"	"
Ferrie	"	"	5	572	"	"	5	"
Gurd	"	"	3	400	1	19	1	4
Lount	"	"	8	1,100	1	100	4	4
Machar	"	"	4	600	1	4	2	2
Mills	"	"	4	600	"	"	2	2

Appendix No. 13.—Continued.

Township.	District or County.	Agent.	No. of persons located.	No. of acres located.	No. of purchasers.	No. of acres sold.	No. of lots resumed.	No. of patents issued.
Pringle	Parry Sound..	Dr. J. S. Freeborn, Magnet- awan.	8	953	...	...	...	1
Ryerson .....	"	" "	...	...	...	...	...	3
Spence .....	"	" " "	...	...	1	13	...	4
Strong	"	" " "	1	123	...	...	2	1
Armour	Parry Sound..	W. Jenkin, Emsdale.	1	95	...	...	1	2
Bethune	"	" "	8	1,189	...	...	5	7
Joly	"	" "	3	500	...	...	4	2
McMurrich ...	"	" "	3	282	1	1	3	5
Perry .....	"	" "	...	...	...	...	...	3
Proudfoot	"	" "	2	200	1	1	2	1
Hardy	Parry Sound..	H. J. Ellis, Powassan..	1	100	...	...	...	2
Himsworth ..	"	" "	11	1,300	1	11	8	3
Laurier	"	" "	2	227	...	...	3	2
Nipissing	"	" "	3	377	9	288	2	5
Patterson	"	" "	3	400	1	10	2	2
Bonfield	Nipissing	W. J. Parsons, North Bay...	12	1,170	2	12½	4	6
Boulter (pt) ..	"	" "	...	...	...	...	...	...
Chisholm	"	" "	14	1,684	2	6½	12	10
Ferris	"	" "	28	2,783	2	35	20	15
Anson	Haliburton ..	R. H. Baker, Minden.....	1	100	...	...	1	1
Glamorgan ..	"	" "	5	466	...	...	5	4
Hindon .....	"	" "	...	...	...	...	...	...
Lutterworth..	"	" "	5	557	...	...	2	2
Minden	"	" "	4	372	...	...	3	4
Snowdon	"	" "	10	1,207	...	...	8	...
Stanhope	"	" "	4	477	...	...	4	1
Anstruther ...	Peterboro' .	William Hales, Apsley	2	200	...	...	2	2
Burleigh, N.D.	"	" "	...	...	...	...	...	...
" S.D.	"	" "	...	...	...	...	...	...
Chandos	"	" "	1	62	...	...	...	1
Methuen .....	"	" "	...	...	...	...	...	...
Cardiff	Haliburton ...	James Wilson, Kinmount....	7	891	...	...	8	2
Cavendish....	Peterboro'....	" "	1	88	1	5	...	3
Galway	"	" "	13	1,472	1	97	6	2
Monmouth ...	Haliburton ...	" "	7	748	1	94	6	4
Bangor	Hastings	W. J. Douglas, Greenview...	8	800	...	...	5	...
Carlaw	"	" "	2	225	...	...	...	...
Cashel .....	"	" "	...	...	...	...	...	...
Dungannon .	"	" "	5	440½	...	...	1	5
Faraday	"	" "	5	669½	1	9	2	3
Herschel	"	" "	12	1,562½	3	11	3	7
Limerick	"	" "	3	295	...	...	1	...
Mayo	"	" "	2	173	...	...	1	3
Monteagle ...	"	" "	13	1,413½	2	12	8	6
McClure	"	" "	4	629	1	10	...	1
Wicklow	"	" "	8	890	3	16	5	1
Wollaston....	"	" "	...	...	...	...	...	...
Algona, S.....	Renfrew	Adam Prince, Wilno.....	...	...	...	...	...	1
Brougham ...	"	" "	6	807	...	...	...	5

Appendix No. 13.—Continued.

Township.	District or County.	Agent.	No. of persons located.	No. of acres located.	No. of purchasers.	No. of acres sold	No. of lots resumed.	No. of patents issued.
Brudenell ...	Renfrew	Adam Prince, Wilno.....	9	1,097	1	50	5	3
Burns	"	"	2	197	2	65½	17	3
Grattan	"	"	3	296	...	...	1	5
Griffith	"	"	9	942½	...	...	1	2
Hagarty	"	"	5	576	...	...	5	4
Jones .....	"	"	...	...	...	...	...	...
Lyell	Nipissing	"	2	300	...	...	...	2
Lyndoch	Renfrew	"	3	306	...	...	1	1
Matawatchan.	"	"	1	76	...	...	...	...
Radcliffe	"	"	5	614	...	...	3	1
Raglan	"	"	9	1,025	...	...	2	9
Richards	"	"	3	400	1	...	5	4
Sebastopol	"	"	1	60½	...	96	...	1
Sherwood	"	"	5	435	1	4	4	...
Algona, N....	Renfrew	Finlay Watt Pembroke.....	1	199	...	...	...	2
Alice	"	"	2	199	1	...	2	2
Buchanan (pt)	"	"	1	129	...	...	...	...
Fraser	"	"	3	420	2	58½	1	4
Head .....	"	"	...	...	...	...	...	...
Maria .....	"	"	...	...	...	...	...	...
McKay (pt) .....	"	"	...	...	...	...	...	...
Petawawa ...	"	"	5	502	1	½	2	...
Rolph	"	"	5	559	1	100	2	2
Wilberforce ..	"	"	1	90	...	...	...	...
Wylie (pt)....	"	"	8	881	...	...	3	1
Calvin	Nipissing	Robert Small, Mattawa.	2	190	...	...	2	3
Cameron (pt).	"	"	2	275	...	...	...	1
Lauder .....	"	"	...	...	...	...	...	...
Mattawan....	"	"	1	172	...	...	1	1
Papineau	"	"	16	1,844	1	208	12	3
Korah	Algoma ..	Edw'd Noble, Sault Ste. Marie	...	...	...	...	...	...
Parke .....	"	"	...	...	...	...	...	...
Prince	"	"	3	434	...	...	3	5
Aberdeen ...	Algoma	Thos. Buchanan, Thessalon.	3	483½	...	...	1	1
" add. ....	"	"	...	...	...	...	...	...
Galbraith	"	"	1	162½	...	...	...	5
Lefroy .....	"	"	...	...	...	...	...	...
Plummer	"	"	1	160	...	...	...	...
" add. ....	"	"	...	...	...	...	...	...
St. Joseph Is'd	Algoma	W. E. Whybourne, Marksville	9	894	2	8½	8	3
Baldwin (pt.).	Algoma	Neil Mulvaney, Espanola...	10	1,566	1	3	2	2
Merritt.....	"	"	8	1,062	...	...	3	7
Blake.....	Thunder Bay.	W. A. Burows, Port Arthur.	48	7,283	2	240	21	9
Conmee	"	"	33	4,883½	1	72½	28	26
Crooks	"	"	16	2,189	2	31	10	2
Dawson Road.	"	"	103	10,413	7	192	47	...
Dorion	"	"	12	1,776½	2	200	7	24
Gillies	"	"	5	712½	2	151½	4	5
Gorham	"	"	35	5,049	1	460½	29	7
Lybster	"	"	7	912	4	287	9	5
Marks.....	"	"	11	1,568½	...	...	7	4

Appendix No. 13.—Continued.

Township.	District or County.	Agent.	No. of persons located.	No. of acres located.	No. of purchasers.	No. of acres sold.	No. of lots resumed.	No. of patents issued.
McGregor	Thunder Bay.	W. A. Burows, Port Arthur.	20	3,202	5	198	22	7
McIntyre	"	"	1	72				4
O'Connor....	"	"	3	445 $\frac{1}{2}$	2	3 $\frac{1}{2}$	3	6
Oliyer.....	"	"	2	308 $\frac{1}{2}$	4	191	1	8
Paipoonge, N R	"	"						2
" S R	"	"	7	878			8	6
Pardee.....	"	"	3	640			1	3
Pearson.....	"	"	69	11,252 $\frac{1}{2}$	4	119 $\frac{1}{2}$	27	2
Scoble.....	"	"	36	5,519 $\frac{1}{2}$	4	43	27	5
Stirling.....	"	"	87	13,194	1	80	12	
Strange.....	"	"	10	1,691 $\frac{1}{2}$			9	3
Ware	"	"	76	11,474 $\frac{1}{2}$	7	289 $\frac{1}{2}$	59	18
Atwood .. .	Rainy River.	William Cameron, Stratton..			1	1		1
Blue	"	"	11	1,208 $\frac{1}{2}$	3	7	2	5
Curran....	"	"	6	888	1	4	5	2
Dewart	"	"	19	3,116	4	84 $\frac{3}{4}$	5	1
Dilke	"	"	1	125	1	2	1	1
Morley.....	"	"	10	1,378	4	10	9	3
Morson	"	"	63	7,151 $\frac{3}{4}$	9	461	47	4
McCrosson ..	"	"	13	1,651	7	366 $\frac{3}{4}$	10	4
Nelles.....	"	"	12	1,569 $\frac{1}{2}$	4	10	13	4
Pattullo... .	"	"	16	1,583	4	88	9	6
Pratt	"	"	6	997	3	160	4	2
Rosebery	"	"						
Shenston.....	"	"	3	382	5	58	3	7
Sifton	"	"	25	3,617 $\frac{1}{4}$	10	439	20	4
Spohn	"	"	38	5,777	5	10	29	
Sutherland...	"	"	22	3,462 $\frac{1}{2}$	4	132 $\frac{1}{2}$	16	1
Tait	"	"	12	1,710	8	169 $\frac{1}{2}$	7	7
Tovell..	"	"	20	2,749 $\frac{1}{2}$	3	105	8	2
Worthington..	"	"	2	200 $\frac{1}{2}$	1	4	2	1
Aylsworth ...	Rainy River .	Alex. McFayden, Emo	1	40 $\frac{1}{2}$				
Barwick	"	"						1
Burriess	"	"	7	1,092	5	117	7	11
Carpenter....	"	"	4	620	2	177	3	4
Crozier.....	"	"	5	740	2	120	7	2
Dance.....	"	"	20	3,178	2	20	19	1
Devlin	"	"	1	162	2	4	2	4
Dobie	"	"	6	912	3	105 $\frac{1}{2}$	4	5
Fleming	"	"						
Kingsford . .	"	"	10	1,566 $\frac{1}{2}$	4	109 $\frac{1}{4}$	10	2
Lash	"	"	3	447 $\frac{1}{2}$	2	6	3	3
Mather	"	"	11	1,742	1	16	8	3
Miscampbell .	"	"	11	1,738	4	199 $\frac{1}{4}$	12	4
Potts	"	"	18	2,765 $\frac{1}{2}$	2	81 $\frac{1}{2}$	16	6
Richardson...	"	"	16	2,385 $\frac{1}{4}$			13	11
Roddick.....	"	"						
Woodyatt	"	"						
Aubrey	Kenora	R. H. Pronger, Dryden	8	997 $\frac{1}{2}$	1	71 $\frac{1}{2}$	4	8
Britton	"	"	17	2,725			1	3
Eton.....	"	"	15	2,270 $\frac{3}{4}$			8	6
Langton	"	"	8	1,246 $\frac{1}{2}$			4	
Melgund	"	"	5	774	1	7 $\frac{1}{4}$	5	1
Mutrie.....	"	"	8	1,215	1	1	11	4
Rowell	"	"	5	720				
Rugby	"	"	3	480 $\frac{1}{2}$	1	52	1	3

Appendix No. 13.—Concluded.

Township.	District or County.	Agent.	No. of persons located.	No of acres located.	No. of purchasers.	No. of acres sold.	No. of lots resumed.	No. of patents issued.
Sanford.....	Kenora	R. H. Pronger, Dryden... ..	21	3,191	1	41	13	2
Southworth ..	"	"	12	1,867 $\frac{1}{2}$	1	76	9	2
Temple.....	"	"	7	1,138	"	"	5	"
Van Horne....	"	"	10	1,352 $\frac{1}{2}$	"	"	6	9
Wabigoon.....	"	"	47	7,345 $\frac{1}{2}$	5	251 $\frac{1}{2}$	33	2
Wainwright..	"	"	12	1,755 $\frac{1}{2}$	"	"	11	2
Zealand.....	"	"	45	6,638	1	16	7	6
Melick	Kenora	W. L. Spry, Kenora	13	1,658	2	34	9	7
Pellatt	"	"	11	1,381 $\frac{1}{2}$	2	81	8	6
Blezard	Sudbury.....	J. A. Lemieux, Blezard	2	317 $\frac{1}{2}$	3	1 $\frac{1}{2}$	3	5
Capreol	"	Valley	10	1,157 $\frac{1}{2}$	3	88	2	5
Hanmer.....	"	"	4	519	"	"	2	1
Lumsden.....	"	"	4	636 $\frac{1}{2}$	"	"	"	1
Balfour.....	Sudbury	J. K. MacLennan, Sudbury .	4	560	"	"	"	6
Broder.....	"	"	22	3,069 $\frac{1}{2}$	2	"	11	1
Chapleau....	"	"	"	"	6	1,630	"	1
Dill.....	"	"	5	786 $\frac{1}{2}$	1	11 $\frac{1}{2}$	"	3
Garson.....	"	"	7	1,007 $\frac{1}{2}$	1	9 $\frac{1}{2}$	2	1
Morgan (pt) ..	"	"	4	557	1	1 $\frac{1}{2}$	1	2
Neelon.....	"	"	1	163 $\frac{1}{2}$	1	$\frac{1}{2}$	2	3
Rayside.....	"	"	4	438 $\frac{1}{2}$	1	43 $\frac{1}{2}$	"	3
Appelby.....	Sudbury	Emile Langlois, Warren.....	6	981 $\frac{1}{2}$	2	13 $\frac{1}{2}$	1	3
Casimir	"	"	5	760	2	127 $\frac{1}{2}$	1	5
Dunnet.....	"	"	1	165	1	5	"	1
Hagar.....	"	"	9	1,437 $\frac{1}{2}$	"	"	1	3
Jennings.....	"	"	6	949	"	"	"	2
Kirkpatrick ..	Nipissing ...	"	4	641 $\frac{1}{2}$	2	10 $\frac{1}{2}$	"	3
Ratter.....	Sudbury	"	6	872 $\frac{1}{2}$	1	6	4	2
Caldwell.....	Nipissing	J. A. Philion, Sturgeon Falls.	2	230	"	"	"	3
Cosby.....	Sudbury	"	10	1,425 $\frac{1}{2}$	2	4	2	7
Grant.....	Nipissing ..	"	10	1,380 $\frac{1}{2}$	"	"	1	2
Macpherson ..	"	"	6	876 $\frac{1}{2}$	"	"	"	5
Martland	Sudbury	"	11	1,739	"	"	5	4
Springer.....	Nipissing	"	2	456	1	80	1	5
Abinger.....	Lennox and Addington	Charles Both, Denbigh	"	"	"	"	"	"
Canonto, S....	Frontenac....	"	1	88	"	"	"	"
" N....	"	"	"	"	"	"	"	"
Clarendon....	"	"	1	97	"	"	1	2
Denbigh... ..	Lennox and Addington	"	3	600	1	2	6	2
Miller (pt.)...	Frontenac....	"	"	"	"	"	1	1
Palmerston (pt.)	"	"	"	"	"	"	"	1
McClintock ...	Muskoka	Unattached	1	100	3	15 $\frac{1}{2}$	"	3
Airy.....	Nipissing.....	"	3	291	2	81	"	1
Finlayson....	"	"	"	"	1	10	"	1
Murchison ...	"	"	2	407	1	7	"	1
Sabine.....	"	"	6	693	2	300	3	1
			1882	258,371	301	10,867 $\frac{1}{2}$	1125	767

Appendix No. 14.

Statement of Municipal Surveys for which instructions issued during the 12 months ending October 31st, 1914.

No.	Name of Surveyor.	No.	Date of Instructions.	Description of Survey.
1	McKay, McKay & Webster.	689	Mar. 3rd, 1914	To survey the boundaries or limits of certain parts of the following public highways in the town of Oakville, namely, Dundas Street, from the northwest limit of Sumner Street to the southeasterly limit of the right of way lands of the Grand Trunk Railway Company, and the "6th line road," from the westerly limit of Dundas Street aforesaid to the said right of way lands of the Grand Trunk Railway Company, and to fix the boundaries or limits thereof by durable monuments, to mark the proper lines of the above streets and roads
2	E. G. Barrow. J. J. McKay.. E. G. McKay..	690	Mar. 20th, 1914	To define the limits of Burlington Street in the City of Hamilton by durable monuments planted at the intersections of the base line or Burlington Street with James Street, Hughson Street, John Street, Catharine Street, Mary Street and Ferguson Avenue.
3	E. R. Bingham	691	Apr. 7th, 1914	To survey certain streets in the City of Port Arthur in the District of Thunder Bay, including North and South Water Streets, Cumberland Street, Court Street, and Algoma Street and all intersecting streets between John Street and McVicar Street, and to have the corners of the streets marked by iron bars duly planted thereat.
4	A. S. Campbell	692	Apr. 9th, 1914	To survey the road allowance between the 3rd and 4th concessions south of the base line in the Township of Wolfe Island in the County of Frontenac, across lots 8, 9 and 10, or as much further on either side as may be necessary to find an original post and to plant durable monuments at the angles of the above lots.
5	Speight & Van Nostrand ..	693	May 20th, 1914	To survey part of the town plot of Port Credit in the County of Peel, lying southwest of the River Credit and northeast of Joseph Street in the said village, and to plant stone or other durable monuments at the front and rear angles of the blocks lying in that part of the village, as shown on annexed plan, pursuant to the provisions of the Surveys Act.
6	W. J. Moore..	694	July 24th, 1914	To survey the road allowance between concessions two and three, in the Township of Ross, from the proof line between lots ten and eleven southeasterly to Olmstead Lake, and to mark said road allowance by permanent monuments.

GEORGE B. KIRKPATRICK,
Director of Surveys.

AUBREY WHITE,
Deputy Minister of Lands and Forests.

Appendix No. 15.

Statement of Municipal Surveys confirmed during the 12 months ending October 31st, 1914.

No.	Name of Surveyor.	No.	Date of Instructions.	Description of Survey.	Date when confirmed under R.S.O. 1897, Chap. 181, secs. 10-15, inclusive
1	Thomas H. Dunn	681	Oct. 26th, 1910	To survey the boundary road allowance between the townships of Osnabruck and Cornwall and to have the said boundary marked by permanent stone or iron monuments at the expense of the municipality of the township of Osnabruck, in the County of Stormont.	July 31, 1914
2	McKay, McKay & Webster	689	Mar. 3rd, 1914	To survey the boundaries or limits of certain parts of the following public highways in the town of Oakville, namely, Dundas Street from the north-west limit of Sumner Street to the southeasterly limit of the right of way lands of the Grand Trunk Railway Co., and the "6th line road" from the westerly limit of Dundas Street aforesaid to the said right of way lands of the Grand Trunk Railway Co., and to fix the boundaries or limits thereof by durable monuments, to mark the proper lines of the above streets and roads.	July 4, 1914
3	E. G. Barrow.... J. J. McKay..... E. G. McKay.....	690	Mar. 20th, 1914	To define the limits of Burlington Street in the City of Hamilton by durable monuments planted at the intersections of the base line or Burlington Street with James Street, Hughson Street, John Street, Catharine Street, Mary Street and Ferguson Avenue.	Oct. 15, 1914

GEORGE B. KIRKPATRICK,
Director of Surveys.

AUBREY WHITE,
Deputy Minister of Lands and Forests.

Appendix No. 16.

Statement of Crown Surveys in progress during the 12 months ending October 31st, 1914.

No.	Date of Instructions.	Name of Surveyor.	Description of Survey.	Amount Paid.
1	Oct. 15, 1914.	E. R. Bingham....	Subdivision of the Township of Upsala, in the District of Thunder Bay	\$ c.
2	July 8, 1914.	E. R. Bingham....	Subdivision of part of the Township of Fraleigh, in the District of Thunder Bay	2,000 00
3	July 28, 1914.	Phillips & Benner.	Subdivision of the Township of Jacques, in the District of Thunder Bay	
4	July 22, 1914.	A. McMeekin.....	Subdivision of the Township of Redvers, in the District of Kenora.....	3,000 00
				1,500 00
				6,500 00

GEORGE B. KIRKPATRICK,
Director of Surveys.

AUBREY WHITE,
Deputy Minister of Lands and Forests.

Appendix No. 17.

Statement of Crown Surveys, completed and closed during the 12 months ending October 31st, 1914.

No.	Date of Instructions.	Name of Surveyor.	Description of Survey.	Amount paid.	No. of Acres.
1	July 4, 1912	Patterson & Byrne	Survey of Township of Drayton, District of Kenora	\$ c 2,550 75	52,792
2	July 4, 1912	Patterson & Byrne	Survey of part of Township of Mattawan, District of Nipissing.	1,052 60	2,016
3	July 15, 1913	J. R. Allen.....	Survey of Township of Stirling, District of Thunder Bay.....	946 55	22,945
4	July 7, 1913	David Beatty ...	Survey of Township of Lowther, District of Algoma	77 45	51,860
5	June 30, 1913	H. J. Beatty.....	Survey of Township of Schofield, District of Algoma	1,742 76	62,559
6	July 10, 1913	J. K. Benner....	Survey of timber berths in the District of Thunder Bay.....	504 75	
7	July 19, 1913	J. S. Dobie.....	Survey of township outlines, Districts of Sudbury and Algoma.	1,641 85	
8	July 2, 1913	J. W. Fitzgerald	Survey of Township of Calthness, District of Algoma	1,197 46	57,570
9	July 4, 1913	C. H. Fullerton..	Survey of Township of O'Brien, District of Timiskaming	1,669 06	51,970
10	July 3, 1913	J. R. Gill.....	Survey of Township of Talbot, District of Algoma	1,409 10	52,364
11	June 30, 1913	Lang & Ross....	Survey of Township of Orkney, District of Algoma	1,154 80	57,893
12	July 9, 1913	T. J. Patten....	Survey of Township of Shetland, District of Algoma	2,005 24	52,732
13	July 12, 1913	Speight & Van Nostrand..	Survey of Township of Ebbs, District of Algoma	2,756 12	62,760
14	July 19, 1913 and Aug. 14, 1913	Sutcliffe & Neelands	Survey of outlines of townships, District of Kenora	2,576 80	23,054
15	Apr. 18, 1913	A. L. Russell....	Survey of Township of Malachi, District of Kenora		
16	July 17, 1913	McAuslan & Anderson	Survey of land adjoining and north of Townships of Ware, Gorham and McGregor, District of Thunder Bay	2,993 47	16,881
17	Mar. 15, 1913	E. Seager	Survey outlines, District of Kenora	1,565 40	
18	July 30, 1914	E. Seager	Survey of Timber Berth K. 11, District of Kenora	204 95	
19	Feb. 14, 1914	W. Smith	Survey of Timber Berths K. 28, 29 and 30, District of Kenora.....	895 70	
20	Mar. 12, 1914	F. C. Lane	Survey of fallen timber at Burwash Lake, District of Sudbury.	484 29	
21	Mar. 10, 1914	J. S. Dobie.....	Survey of fallen timber at Burwash Lake, District of Sudbury.	428 30	
22	July 23, 1914	C. H. Fullerton..	Survey of Timber Berth A., Mississauga Forest Reserve, District of Algoma	408 85	
23		Jas. Hutcheon ..	Survey of water power on Blanche River, District of Timiskaming.	197 70	
			Examination of land in rear of Hastings Road and water power on Victoria Creek near Larder Lake	43 30	
			Rice Lewis & Son, iron posts.....	190 00	
			Capt. J. White, examination sand and gravel, Pelee Island	22 60	
			C. Tarling, mounting maps.....	26 35	
			E. H. Harcourt & Co., lithographing	1,250 00	
				29,996 20	567,396

GEORGE B. KIRKPATRICK,
Director of Surveys.

AUBREY WHITE,
Deputy Minister of Lands and Forests.

Appendix No. 18.

SURVEY OF TOWNSHIP OUTLINES IN THE DISTRICTS OF ALGOMA AND SUDBURY.

THESSALON, Ontario, November 22nd, 1913.

SIR,—In accordance with your instructions dated July 19th, 1913, I have made a survey of certain township outlines in the districts of Algoma and Sudbury, and beg to submit the following report.

The starting point for this survey was the north-east corner of township 7 D, the north boundary of which was run by myself in the year 1910. From this point a base line was run due east on six mile chords of a parallel of latitude, to intersect the meridian line run by O.L.S. Niven in 1902, at a point 4.49 chains south of the 30th mile post. A meridian line run by O.L.S. Patten in 1910, was intersected at a point 6 miles 1.40 chains east of my original starting point. From this point, which is the north-east corner of township 7 C, a meridian line was run north a distance of six miles. From the end of each succeeding six mile chord, a meridian line was run both north and south, a distance of six miles, more or less. The meridian lines running south were run as far as the intersection with the base line run by O.L.S. Niven in 1902. The meridian lines running north were intersected by a base line run by myself later in the season. The meridian line running north between township 8 A and 8 Z, was run a distance of six miles, and from the end of this meridian, a base line was run east a distance of 5 miles, 57.58 chains, to intersect the meridian line run by O.L.S. Niven in 1902, at a point 4.05 chains south of the 36 mile post. The same base line was run west on a series of six mile chords, to intersect the meridian line run by O.L.S. Patten in 1910, at a point 30 links north of the six mile post. This base line intersects the meridian lines previously described.

At each of the township corners formed by the intersection of these base and meridian lines, an iron post was planted, and marked with the numbers of the adjoining townships. At the end of every third mile on both base and meridian lines, a similar iron post was planted, and marked IIIM on the south side in the case of a meridian line, and on the east side in the case of a base line. Wooden posts of the best timber available were planted alongside these iron posts and similarly marked. Wooden posts were planted at the end of each mile, and when the end of a mile came in the water, the post was planted on the nearest shore, and the chainage was marked upon it. The end of each half mile was also marked by a wooden post with the chainage carved upon it. The posts were all marked on the south side in the case of a meridian line, and on the east side in the case of a base line. Bearing trees were marked wherever possible, and the distance and bearing of of the bearing tree from the post recorded in the proper place in the field notes. Mounds of stone were erected around the posts wherever it was possible to obtain them.

The lines were all run with a transit, and observations for azimuth were taken every clear day on the line. For this purpose a Waltham sidereal watch was carried, and checked at frequent intervals. The transit used on this work has an object glass sufficiently powerful to permit of observations being taken on Polaris in the daytime. The results of the observations are entered in their proper places in the field notes.

The lines are all well cut out and blazed, and every care was taken to see that the survey was performed in a proper manner.

GENERAL CHARACTERISTICS.

The territory embraced within the limits of this survey as a whole, is rough and hilly. It is considerably broken with rock ridges, and with hills of gravel and boulders of glacial origin. As a whole, however, the country is not as rough as that a few miles further south, the rock ridges not being so high nor so numerous. The amount of land suitable for agriculture is very small. There are a few small areas of sandy loam, but these are isolated, and so scattered that nowhere within the limits of the area surveyed would it be possible to develop an agricultural industry.

TIMBER.

These townships as a whole are well timbered with a mixed growth of the timber characteristic of this country. There is very little red or white pine, and what there is occurs in scattered trees throughout the other timber. The best white pine encountered is in townships 7 Z and 8 Z. There are a few scattered trees near the west boundary of townships 7 C and 8 C, but in comparison with the large area embraced within the area surveyed, the amount of red and white pine is very small. The most valuable timber is jack pine and spruce. The amount of jack pine is very large, and the timber is of splendid quality. The trees in many places grow very thickly, and are large and straight. Some of the best tie timber I have ever seen is to be found within the limits of these townships. There is also a large quantity of very good spruce. There are very few large spruce swamps, the best spruce being found on the higher ground, growing amongst other timber. The remaining timber on the unburnt areas, is a mixed growth of balsam, white birch, poplar, etc. Fire has done a great deal of damage in this section of the country, and every township has suffered to a greater or less extent. It is noticeable that the fires for the most part seem to have occurred along the canoe routes, and some of them have run for long distances. Some of these fires have occurred many years ago, and the second growth is now grown up to a considerable size, although it is very noticeable that the second growth timber is nowhere of as good quality as that which grows on the portions which have escaped the fire. Other fires have been of more recent origin. One large fire has over-run a considerable area in townships 8 A and 8 Z not very long ago, as the timber is not yet all fallen, and the second growth is still very small.

WATER.

The territory lying within the limits of this survey is well watered with numerous small lakes and streams. It is practically all drained by the various tributaries of the Mississauga river, only a small area at the extreme east end of this territory being tributary to the Spanish river. The Wenebagon river, which has an average width of about one chain, runs through townships 7 C and 8 C. The Keksquashesing river, which forms part of the canoe route to the Wenebagon river from the main line of the Canadian Pacific Railway empties into the Wenebagon river in township 8 C. The Embrass river joins the Wenebagon river in township 7 C, and drains a number of lakes, some of which are fairly large. In townships 8 A, 8 Z and 7 Z, there are a number of lakes of considerable size, the waters of which flow to the Mississauga river, probably by way of White Owl lake. There is a canoe route via these lakes from the fire ranger's headquarters at Green lake to the Wenebagon river. This route is much used by the fire rangers, and the portages are all well cut out. The portages are very numerous, however,

and during the time that this survey was in progress, the water in the creeks connecting these lakes was very shallow. In several cases it was necessary to cut out new portages around these creeks, as there was not enough water to float a loaded canoe. Most of these creeks could be used for driving timber, with some improvements, as an abundant supply of water for this purpose could be stored in the various lakes.

WATER POWERS.

The water powers are not of great importance in this section, as this territory is fairly close to the head waters of the streams flowing through it. There is one fall on the Wenebagon river in township 7 C, where the river drops about 30 feet in 25 chains, and a dam could easily be erected which would considerably increase the head. Wenebagon lake would make a splendid storage reservoir. This is the only power of any importance that could be developed in this territory. There are other small falls, but they are relatively unimportant.

MINERALS.

The prevailing geological formation is Laurentian. The rock exposures are nearly all granite, in some cases with very coarse crystals of feldspar. The granite is intersected in many places with dikes of fine grained trap. In most cases the contact of these dikes with the granite is so tight that the adjoining rocks are almost fused together. No minerals of any economic value were observed during the progress of the survey.

FISH AND GAME.

Most of the lakes within the limits of the survey are well supplied with fish. The net which was supplied by your Department was set whenever it was possible, although more fish were caught with a troll than with the net. All the lakes where fishing was tried contain pike. Embrass lake and the large lake through which the north boundary of township 7 Z passes, contain whitefish and suckers. The whitefish caught by us, however, were small and of poor quality. Marion lake and the large lake in the south-west corner of township 8 Z are said by the Indians to contain lake trout, but we were not successful in catching any. Moose are very plentiful, and a few deer were seen; also some traces of bear. The ordinary small fur-bearing animals appear to be quite plentiful, and beaver are becoming very numerous. The ordinary ruffed grouse, or partridge have shown an extraordinary increase in numbers during the last few years, and are now very plentiful.

The magnetic variation is fairly constant at an average value of about 4 degrees 30 minutes.

Herewith are included field notes, a plan on mounted drawing paper, a timber plan on tracing linen, and accounts in triplicate, all properly attested.

I have the honour to be, Sir,

Your obedient servant,

(Signed) JAMES S. DOBIE,

Ontario Land Surveyor.

The Honourable the Minister of Lands, Forests and Mines,
Toronto, Ontario.

Appendix No. 19.

SURVEY OF TOWNSHIP OUTLINES IN THE DISTRICT OF KENORA.

NORTH BAY, Ont., September 24th, 1913.

SIR,—We beg to advise the completion of the survey of certain township outlines performed under instructions from your Department bearing date of July 17th, 1913, and to submit thereon the following report:

The survey was commenced, according to the instructions, at the iron post marking the north west angle of Rowell township, from which point No. 2 base line was run west astronomically on 6 mile chords a distance of twenty-four miles. From the 6 mile post on this base line, our No. 1 meridian was run south astronomically to Rosamond lake, and triangulated connections were there made with the posts planted by O.L.S. MacDougall in the survey of the township of Rugby, to mark the extremities of the west and north boundaries of that township. We find, that had these two lines been produced, they would have intersected on the mainland, instead of in Rosamond lake as was shown on Ruby township plan. These triangulations are reduced and the connections illustrated in the field notes.

No. 2 meridian was run south astronomically from the 12 mile post on No. 2 base line, to the intersection with the north boundary of the township of Mutrie. From the 6 mile post on this meridian No. 1 base line was run east astronomically on a six mile chord to an intersection with No. 1 meridian, and run west astronomically in a similar manner to an intersection with No. 3 meridian.

From the 18 mile post on No. 2 base line our No. 3 meridian was run south astronomically to an intersection with the north boundary of Wabigoon township; and from the 24 mile post on No. 2 base line, which point occurs on an island in Clay lake, our No. 4 meridian was run south astronomically to an intersection with the north boundary of Smellie township.

Iron posts, properly marked with a cold chisel, were planted at intervals of 3 miles along our lines, while 6 inch posts of spruce or jack pine at intervals of 1 mile; and 4 inch posts of spruce or jack pine at intervals of half a mile were suitably scribed and planted. Wherever possible these posts were mounded with stones and bearing trees marked and noted. Some few extra posts were planted at irregular chainages, to mark the intersection of our lines with shore lines the same being properly recorded in the notes. Frequent astronomic observations for azimuth were taken and are recorded in the notes, numerous magnetic observations were also made from which latter the magnetic variation was found to average N. 10 degrees E.

GENERAL FEATURES.

A very large percentage of the area embraced by this survey is very barren, rough and rocky, and almost the entire area has been fire swept. In the first instance this has very probably occurred during the construction of the Canadian Pacific Railway and again about six years or so ago. Much of the timber as a result of this former fire has fallen down and is a tangle, thickly up grown with small young jack pine. Small areas of clay of a high quality are mingled with these mountains, but so restricted in area, and so scattered, as to raise the question as to whether community farming would be practicable, excepting in those areas lying adjacent to the Grand Trunk Pacific Railway. Again, restricted areas of good jack pine of a fair size coupled with unrestricted areas of thicket growth of small

jack pine make the question of setting aside this area for a timber reserve worthy of consideration. Clay lake occupies a large area of the north-west corner of the township of Redvers, and a large number of islands occur in this lake within the limits of this township. Along this lake and the Wabigoon river there is a wide deposit of good soil and this township, particularly the south-westerly and westerly portions of it, forms a very favorable proposition for subdivision.

SOIL.

The soil is in most cases of a clay loam, very little of heavy white clay being encountered. Again our lines crossed many small sandy flats scattered among the mountains. The clay is of a light loam, and from evidences seen, of a high order of productiveness.

TIMBER.

As before mentioned jack pine is the predominating timber, the vast majority of it being at present too small for commercial purposes. There are, however, small areas of it sufficiently large in dimensions to be used for railway purposes. In the swamps are spruce of suitable dimensions for pulp wood while in a few instances Norway pine of a fair dimension were encountered, but these are a negligible quantity.

ROCK.

The country rock is red granite showing abundant evidences of past glacial action. No contacts were observed, nor economic minerals encountered.

LAKES.

Many lakes were encountered, small in area but all stocked with fish, the chief varieties being pike, pickerel and maskalonge. Unfortunately through the carelessness of the express company's officials at Sioux Lookout we did not get the net sent in to us by the Game Wardens' Department until too late for us to make use of. The varieties enumerated were caught by hand lines.

GAME.

Large game is very plentiful and moose, caribou, red deer and bear were seen daily during the progress of the work. Small fur is also very abundant and trapping is reported to be quite profitable.

Accompanying this report are plan, field notes, accounts in triplicate, etc., all of which are respectfully submitted for your approval.

We have the honour to be, Sir,

Your obedient servants,

(Signed) MCAUSLAN & ANDERSON,

Ontario Land Surveyors.

The Honourable the Minister of Lands, Forests and Mines,
Toronto, Ontario.

Appendix No. 20.

SURVEY OF TOWNSHIP OUTLINES OF PELICAN, MALACHI AND RICE, IN THE DISTRICT OF KENORA.

NEW LISKEARD, Ontario, March 11th, 1914.

SIR,—In compliance with your instructions bearing date of July 19th, 1913, I proceeded to Kenora where provisions and three canoes were purchased, and the following day started down the Winnipeg river. Through the kindness of Mr. Frazer, Government Road foreman, I was able to get part of our supplies and men taken to Smith's farm by gasoline launch. From this point our supplies were portaged to Culloden lake and thence by canoe to west end of same, which was within ten chains of starting point.

The first night an observation was obtained, and the following day while supplies were being brought up and everything gotten in shape for action I scouted the country west of this point for four or five miles and discovered the portages and canoe route which was very convenient to our work. After cutting two miles, I moved camp and supplies to Catharine lake, from which place the cook and one or two men moved everything by canoe for almost the entire survey; while, with four men on line and my assistant and one chainer following, we ran west ten and a half miles. I then moved north along Pelican Pouch lake, carrying along first meridian. From our camp at north end of Pelican Pouch lake I took fly camp via timber road most of the way to Long lake, fortunately striking it at the most westerly point about five chains from where the second base line afterwards crossed. I immediately had one canoe brought ahead and the same night my assistant, picket man, and I camped at the north-west angle of Umbach township where an observation was obtained, and the following day we ran 2nd base line to Long lake, and thence on to Otter where we discovered that a canoe route led around to the north of our line to Long lake. I doubt, however, if we could have gained any time by using same.

When I closed in the first township, i.e., Pelican, I found that my angle at the north-west angle of same was theoretically correct, but found the chainage three chains and forty-eight links shorter than south boundary of Pelican. After checking over all the triangulation and finding no error—the chainers taking particular care in trying to see how close we could close—we decided that the error might possibly be in the west boundary of Umbach, and accordingly, started chainage again from north west corner of Pelican, thinking that position of posts might be confusing if subdividing to the north in the future. The one-half mile posts were afterwards removed on advice from Mr. L. V. Rorke, for same reason.

The second base line was run ahead to North Scott lake and left until we moved to south end of Malachi lake, from which point the 1st base line was picked up and run out to end of twelve miles. We then ran second meridian north to 2nd base line, closing 80 links west of 6 mile post and 14 links long on second meridian. I discovered the following night that the 2nd base line at this point was running 3 minutes north of the theoretical bearing, checking with chainage of 2nd meridian. Accordingly, I decided to run line straight ahead as it was then running within $1\frac{1}{2}$ minutes of bearing for last six mile chord.

My assistant then started traverse of Malachi lake, first making triangulation survey of same and later connecting points of traverse by detailed traverse of shore line, while with a fly camp I finished 1st base line, hitting eight chains and

seventy links north of 30th mile post on Manitoba boundary, the south boundary of Rice being five miles, sixty-five chains and eighty-seven links. Returning I moved camp to north end of Malachi lake where canoe route was used via North, Scott, and Moose lakes in finishing 2nd base line, hitting Manitoba boundary nine chains and seventy links north of 36th mile post; the chainage of north boundary of Rice being five miles, sixty-four chains and eighty-four links.

I do not consider it wise to subdivide the remaining townships, as a very small percentage of the land is good. Where patches do occur, the soil is generally very fertile and the timber large, but the country for the most part is bare rock or sand, or rock with a very light overburden.

PELICAN TOWNSHIP.

Practically the whole south boundary of Pelican township ran through small second growth poplar and jack pine; bare rock being visible much of the distance. At the south east angle of the township there was a small area of good agricultural land, and another small strip where the Government Road passes through. The north boundary runs through heavier timber, which the fire has not passed through. There is a fairly good section of land lying between Long lake and Trout lake. Another small section of land along the west boundary of Pelican between Malachi township and Pelican Pouch lake is arable in spots, particularly the northern part.

I covered most of the southern, northern and western, and eastern sections of this township, but there is six or eight square miles in the centre that I was not through.

Along the eastern side of the southern part of Pelican Pouch lake the land is fairly regular with a fairly heavy overburden of sand, on which grows fairly large jack pine.

The Government Road through Pelican township, I firmly believe passes through by far the best part of it.

MALACHI TOWNSHIP.

Malachi township has considerable good timber, much of which, however, has been removed, but there still remains much good jack pine, especially along the western and southern sides of Malachi lake, and south of Duck lake across the south boundary; in other words, that section of the township south-west of a line from Muddy lake on the south to Malachi station.

East and north-east of Duck lake at least one and a half square miles is bare rock, on which scarcely anything but blueberries grow; these, however, are very plentiful and tons are shipped yearly from this spot.

The remainder of the township is covered for the most part with small jack pine and poplar.

This township, like Pelican, has a small percentage of good clay land.

RICE TOWNSHIP.

Rice township in some respects is similar to Pelican. The south boundary from M.14 to the boundary, running through light timber and over bare rock. The eastern section has some very good timber, and also, the northern—with the exception of the last two miles near the Manitoba boundary, which is light.

I found, in a general way, the best timber and the best land adjacent to the large lakes.

There is possibly from five to ten per cent. clay soil; from twenty to thirty, sandy soil with rock outcroppings; and the remainder bare rock, or barely covered.

FRUIT.

We found wild plums and blueberries in considerable quantities, and raspberries occasionally, but fruit should be a pretty fair crop.

GAME.

Moose, red deer, and caribou are plentiful, as well as porcupine and rabbits. We saw several mink and muskrats, but no recent trace of beaver. Coyotes seemed fairly plentiful but we only heard them.

FISH.

According to your instructions, we set the net whenever and wherever possible, but Malachi lake seemed the only lake in which we were successful. Large pike and pickerel seem quite abundant, and the Indians say white fish, too, are plentiful, but rather difficult to catch during the summer months.

In Pelican Pouch lake we caught only suckers and these seemed plentiful.

The water in this lake is very clear but becomes covered with a green scum at least one-half inch in thickness during August and September.

In Clear lake and Trout lake we saw dead trout lying on the shore.

We used the troll on Catharine and Otter lakes but with little success.

ROCK FORMATION.

We examined this carefully along all the lines and found nothing but Laurentian granite. In the southern part of Pelican township it was of a reddish color, containing much feldspar and large veins of smoky quartz, but of a very hungry and glassy nature.

The formation to the north and particularly along the Grand Trunk Pacific Railway, was somewhat grey in color and appeared to break readily along horizontal seams.

We carefully noted all rock met with and found no trace of economic minerals.

Accompanying this report, please find plan on mounted paper, and timber plan. We are sending in traverse of Malachi lake on mounted paper as well as on tracing linen, with plan of subdivision of Malachi township—the second contract.

Trusting that our returns meet with your approval.

We have the honour to be, Sir,

Your obedient servants,

(Signed) SUTCLIFFE & NEELANDS,

Ontario Land Surveyors.

The Honourable the Minister of Lands, Forests and Mines,
Toronto, Ontario.

Appendix No. 21

SURVEY OF THE TOWNSHIP OF CAITHNESS, DISTRICT OF ALGOMA.

PETERBOROUGH, December 29th, 1913.

SIR,—I have the honour to report the completion of the survey of the township of Caithness in the District of Algoma performed under instructions from your Department dated July 2nd of this year. I beg to submit also the field notes and plan of the township all of which I trust will be found complete and satisfactory.

As instructed I commenced the survey proper at the south-east angle of the township, from this point I chained westerly along the south boundary, giving to each of the lots a width of twenty-five chains and twenty-five links from lot one to thirty, inclusive. Lot thirty-one being thirty-seven chains and eighty-seven links. A half road allowance of fifty links was allowed for east of lot one and a full road allowance of one chain between lots six and seven, twelve and thirteen, eighteen and nineteen, and twenty-four and twenty-five, a half road allowance was also allowed for along the east side of the west boundary, the side lines in the centre of the road allowances between lots six and seven, twelve and thirteen, eighteen and nineteen and twenty-four and twenty-five. I ran due north astronomically from the south to the north boundary of the township. To each of the regular concessions I gave a depth of fifty-nine chains and fifty links, leaving a road allowance of one chain between concession two and three, four and five, six and seven, eight and nine and ten and eleven, a half road allowance of fifty links was also allowed for along the north side of the south boundary line and along the south side of the north boundary line. The concession lines in the centre of the road allowances, between concessions two and three and six and seven, were run from the exact points on the east boundary of the township due west astronomically to the west boundary, while the concession lines in the centre of the road allowances between concessions four and five, eight and nine and ten and eleven were run due east astronomically to the east boundary, and due west astronomically to the west boundary, from points established on the line in the centre of the road allowance between lots six and seven. Good posts made of the most durable wood to be had in the vicinity were firmly planted along the various concession lines, between the lots—one on the line itself as a guide post with the number of the lots cut on the east and west sides and the letter R cut on the north and south sides—one fifty links north of the guide post with the numbers of the lots cut on the east and west sides, and the number of the concession or R cut on the north or south sides as the case may be, at the intersection of the centre lines of the different side road allowances with the centre line of the different concession road allowances—good posts were also planted with the letter R cut on the north, south, east and west sides, good posts were also planted at the angle of each of the four adjoining lots with the number of the concession cut on the north or south side as the case might be, and the number of the lot cut on the east or west side as the case might be, and the letter R cut on the two sides facing the concession and side road allowances—these posts were planted at a distance of fifty links from the centre of the side road allowance and fifty links from the centre of the concession road allowance. Where the front angle of a lot fell in a lake or in the Mattawitchewan river the posts were projected to the proper points on the north or south or on the north and south sides thereon—these posts were

planted at a perpendicular distance of one chain from high water mark—witness posts with the numbers of the lots marked on the east and west sides were also placed at high water mark, and where they were to be had several trees in the vicinity were blazed in a conspicuous manner. A road allowance of one chain in perpendicular width is allowed for along each side of the Mattawitchewan river, also around all large lakes and around all lakes cut by the concession and side road allowances—all these road allowances are marked by good durable posts planted on the lines of survey with the letter R cut on the sides facing the road allowances. To all posts—with the exception of the guide posts—the witness posts—and the posts defining a road allowance—suitable bearing trees were marked—full descriptions of which will be found in the field notes. In order to make the survey more permanent in case of the destruction of the wooden posts by fire—iron posts made of iron tube one and one quarter inches in diameter—three feet long and painted red were placed at the points indicated I.P. on the township plan, these posts were marked with a cold chisel similarly to the wooden posts alongside of which they stand.

The township of Caithness is well watered by the Mattawitchewan river and several smaller streams which enters it on its course across the township. The river has an average width of about two chains and fifty links and varies in depth from a few inches to four or five feet—for the greater part of its way across the township it is made up of a succession of shallow rapids filled with boulders and remarkably sharp edged rocks, so much so that it can scarcely be said to be navigable in any sense of the word even for canoes. The water of the river is clear and of good quality and contains some averaged sized pike. One small water power with a head of four feet ten inches occurs on lot twenty-seven, concession eight, immediately north of the line in the centre of the road allowance between concessions-eight and nine, particulars, etc., of which will be found in the traverse notes.

A stream called the Goat river which has a fair current and an average width of about eighty-five links enters the river from the south at lot thirty, concession five—the water in this stream which varies in depth from a few inches to three or four feet is pure and clear and contains some fair sized speckled trout.

There is only one lake of any importance in the township situated near its south east angle this is called Big Pike lake, this lake is almost land locked having no inlet or outlet of importance, the water which is pure and of good quality is of a greenish tinge and up to ten feet in depth—some good sized pike were procured in this lake.

The whole of the township of Caithness may be described as a more or less rolling country timbered with spruce up to fourteen inches in diameter, balsam of gilead up to sixteen inches in diameter, poplar, white birch, balsam and cedar of an average size and quality. The undergrowth consists for the most part of alder and willow, while here and there considerable windfall is met with. Interspersed throughout are swamps covered with spruce and dead tamarac, and as a rule, grown up with a dense growth of alder. All these swamps have a considerable elevation above the waterways and will admit of very easy drainage. On the uplands, generally speaking, the soil is a black loam rich in humus and of from eight to twelve inches in depth entirely free from stone with a subsoil of clay. Quite a few outcroppings of rock (Huronian) but very limited in extent are met with, particularly around Big Pike lake and along the south boundary. I found no traces of mineral whatever. The average magnetic variation is about six degrees and fifteen minutes west of north. I would consider about fifty per cent. of this

township suitable for immediate settlement, and there can be no doubt that by a proper drainage of the swamps twenty-five per cent. of the remainder can be made suitable for agriculture. Game and fur of the usual kinds common to this section, and particularly moose, are to be seen in abundance.

Observations for azimuth on Polaris at elongation were taken at least once a week with the exception of the last two weeks of the work, which was almost a continuous downpour of rain. All the lines were run with the transit, well opened up and blazed, and carefully chained and posted by experienced hands. A careful traverse survey of the Mattawitchewan river and also of the lakes was made with the micrometer and transit, all the work closing in a very satisfactory manner.

I have the honour to be, Sir,

Your obedient servant,

(Signed) J. W. FITZGERALD,

Ontario Land Surveyor.

The Honourable the Minister of Lands, Forests and Mines,
Toronto, Ontario.

Appendix No. 22.

SURVEY OF THE TOWNSHIP OF EBBS, DISTRICT OF ALGOMA.

TORONTO, December 22nd, 1913.

SIR,—We have the honour to submit the following report on the survey of the township of Ebbs, in the District of Algoma, made by us under instructions from your Department, dated the 12th day of July, 1913.

On 29th July we left Toronto, via the Canadian Pacific Railway for Franz, where the party was organized. The party was in charge of John van Nostrand, O.L.S., assisted by N. A. Burwash, O.L.S., and included five other men from Toronto and vicinity, and eleven men from Missinabie and Franz. We then proceeded to Oba by construction train on the Algoma Central Railway. From the railway the party and supplies were taken down the Albany Branch of the Oba river in canoes to the falls, a short distance above the line between lots 6 and 7, in the township of Scholfield. The supplies and camp outfit were then packed to that line and north along it to the line between concessions X and XI, then east to the east boundary and north on the east boundary, to the starting point of the survey, at the south-east corner of the township of Ebbs, in all, a distance of seven miles, more or less.

The township is bounded on the south by the township of Scholfield, and on the east by the township of Orkney, on the north by the townships of Lowther and Shetland, and on the west by the unsurveyed township of Templeton. The Algoma Central Railway passes about four chains west of, and fifteen chains north of the north-west corner of the township and runs in a north-easterly and south-westerly direction from this point, which is about twenty miles from the town of Hearst.

The part of the Albany Branch of the Oba river travelled over is at this time of the year a very shallow stream filled with large sharp boulders and shallow bars, and it was found necessary to load nineteen foot canoes to not more than half capacity in order to get them through at all. In fact, the part of the river between the line between lots 6 and 7, in the township of Scholfield, and the east boundary of that township, was reported to be in such bad condition that no attempt was made to travel over it.

The survey was commenced on 11th August and completed on 2nd October.

On arriving at the starting point it was found that the line forming the south boundary of the township or Orkney had not been run to its intersection with the east boundary of the township of Scholfield.

Proceeding as instructed we went east and picked up this line at the nine mile post and produced it west seventy-nine chains and eight links to the above-mentioned intersection.

From the point thus established the east boundary of the township of Ebbs was run north astronomically to the south boundary of the township of Shetland, thus establishing the north-east corner of the township of Ebbs, and the south boundary was run as an eleven mile chord of a parallel of latitude west to the west boundary.

All lines were run with the transit and frequent astronomical observations, the record of a number of which are appended, were taken to verify the courses of the lines run. All lines were well opened out and blazed.

Wooden posts of the most durable timber obtainable were planted at the points required by the instructions.

Iron posts, one and one-quarter inches in diameter, furnished by your Department, were planted alongside the wooden posts, at the following points:—

At the south-east corner of lot 13, concession I.

At the south-west corner of lot 24, concession I.

At the south-east corner of lot 1, concession V.

At the south-west corner of lot 12, concession V.

At the south-west corner of lot 24, concession V.

At the south-west corner of lot 34, concession V.

At the south-east corner of lot 1, concession IX.

At the south-west corner of lot 12, concession IX.

At the south-west corner of lot 24, concession IX.

At the south-west corner of lot 34, concession IX.

At the north-east corner of lot 1, concession XII.

At the north-west corner of lot 12, concession XII.

At the north-west corner of lot 24, concession XII.

A traverse was made of a small lake in lots 27 and 28, concession X, this being the only lake seen in the township.

SOIL.

The soil in nearly the whole of the township is sandy, generally low-lying and wet, with a few dry patches. The wet land is covered with from twelve inches to thirty inches of moss and peat, and the dry land with from two inches to twelve inches of moss. The exceptions to this are the large muskeg areas which occur in the western part of the township, as shown on the plan and field notes, also occasional gravel beds. Not more than ten per cent. of the soil, in our opinion, is suited for ordinary agricultural purposes.

TIMBER.

The timber, except in the muskeg areas, is chiefly spruce, with tamarac (dead), poplar, birch, balsam and cedar. The spruce, tamarac and balsam average about five inches in diameter and are not of much commercial value. The poplar and birch occur on the drier ground in small areas and run from four inches to twelve inches in diameter. The cedar is small and scrubby.

The timber in the muskeg is stunted tamarac and spruce up to three inches in diameter.

The whole country shows evidence of having been fire-swept sixty or seventy years ago, and the timber has not since obtained its full growth.

MINERALS.

No economic minerals were seen but in a great many places small stringers of milky quartz occurred in the greenstone outcroppings. A number of samples of the country rock accompany this report.

GAME.

Moose and caribou were very abundant, several moose being seen during the progress of the survey. A few fresh beaver cuttings were seen in the north-west part of the township, but they do not appear to be very abundant. Marten were also seen. Spruce partridge were abundant, and pin-tailed prairie chickens were seen, exclusively in the muskeg areas. Rabbits were plentiful. No fish of any kind were obtained, the streams being too small.

WATER POWER.

No water powers occur in the township.

GENERAL.

In the south-east corner of the township all the streams are small, and are tributary to the Albany Branch of the Oba river. In the south-west corner of the township there is a large stream fifty links wide and three feet deep, with a fairly rapid current. This is a tributary of the Mattawisquia river. In the northern half of the township all the streams are small except for two fairly large creeks which rise in the township and unite after leaving it to form the Beaver river. These streams afford good natural drainage for the land within their influence, except the muskeg areas which would require considerable work to drain.

The general topography is almost level, with very gentle undulations and low outcroppings of greenstone rocks which do not rise much above the general level.

The returns accompanying this report comprise a general plan, a timber plan, field notes of the entire survey, also account in triplicate.

We have the honour to be, Sir,

Your obedient servants,

(Signed) SPEIGHT & VAN NOSTRAND,

Ontario Land Surveyors.

The Honourable the Minister of Lands, Forests and Mines,
Toronto, Ont.

Appendix No. 23.

SURVEY OF THE TOWNSHIP OF LOWTHER IN THE DISTRICT OF ALGOMA.

PARRY SOUND, December 16th, 1913.

Sir,—I have the honour to submit the following report on the survey of the township of Lowther in the District of Algoma, performed under instructions dated the 7th of July, 1913.

I proceeded to my work by way of Cochrane and thence by Grand Trunk Pacific Railway to Hearst and from there I moved into the township of Lowther along the grade of the Algoma Central and Hudson Bay Railway, and commenced my survey at the north-east angle of the township at the post planted by Ontario Land Surveyors Sutcliffe and Neelands and chained westerly along the north boundary making each lot 25 chains and 25 links wide, excepting lot 6 which I made 24 chains and 94 links wide, allowing for convergence of meridians across the township; here I observed Polaris for meridian and ran the centre line of road allowance between lots 6 and 7 due south, making said line my base for starting the several concession lines throughout the township running east and west.

This township was surveyed under the new method of survey approved of by Order in Council dated April 24th, 1906. Under this system I surveyed 12 concessions numbering from south to north with a road allowance of 50 links wide on each side of the outlines of the township and one chain wide between every second concession, namely between concessions 2 and 3, 4 and 5, 6 and 7, 8 and 9, etc., and a blind line between the other concessions namely, 1 and 2, 3 and 4, 5 and 6, 7 and 8, etc., with a road allowance 1 chain in width between every six lots, the lots being numbered from east to west.

This township was laid out with a double front on each concession road allowance run on the ground. I ran the concession lines in the middle of the road allowance between each alternate concession as chords of a parallel of latitude passing through the township corners and the side lines between every sixth and seventh lot in the middle of the road allowance on a course north astronomically.

I planted firmly in the ground at the front angles of the lots at right angles from my centre line of the concession road allowance, durable and substantial posts of the dimensions given in the general instructions, at the distance of 50 links on each side north and south of my line. I also planted posts in the centre of my lines of survey as guide posts. These posts were marked as per instructions. At the intersection of the centre of the different side road allowances with the centre line of the different concession road allowances I planted a post marked "R" on each of the four sides.

The Algoma Central and Hudson Bay Railway extends in a general north-easterly direction across the north-west angle of the township. I allowed a road allowance one chain in width, along each side of the right of way. The line of the said railway has been accurately plotted on the plan accompanying this report. Road allowances, one chain in width, were also left about the several lakes met with in the survey of the township, these being posted as per instructions. In chaining the boundaries of the township I noted the chainage to all survey posts planted on these lines in former surveys and have shown in the field notes of my concession and side lines the amount of jog which my lines made with those in the adjoining townships.

In surveying the side road allowances I did not plant posts at the blind concession lines, but gave the adjoining concessions an equal depth, assigning to each half the distance between alternate concession road allowances.

My lines of survey were well cut out and well blazed and all of the lines were run with the transit. Astronomical observations for the meridian were taken at least once a week to verify the direction of my lines. The field notes were kept as per instructions.

With a view to making the survey permanent in case of fire I planted alongside the wooden posts an iron post at the points indicated on the projected plan accompanying my instructions. These posts were marked with a cold chisel similarly to the wooden posts alongside which they were placed.

All waters within the limits of my survey were surveyed and connected with my lines of survey whether or not such waters were intersected by the concession or side lines run by me. The survey of these lakes has been plotted on a scale of ten chains to the inch and accompanies this report.

TIMBER.

The timber throughout the township is spruce from 4 to 10 inches in diameter, excepting some small areas of poplar and white birch, as shown in the field notes.

SOIL.

The soil is clay with some small areas of lighter soil in the vicinity of outcroppings of granite rock which occurs in a few places as indicated in the field notes. There is considerable swampy ground but very little muskeg, and the swamps will all be easily drained as the creeks and water courses are considerably below the general surface of the ground.

MINERALS.

I saw no indication of mineral in the township.

LAKES.

There are only a few small lakes in the township and I doubt if there are any fish; at least we were not able to catch any with hook and line.

GAME.

The only game I saw in the township was moose.

I have the honour to be, Sir,

Your obedient servant,

(Signed) DAVID BEATTY,
Ontario Land Surveyor.

The Honourable the Minister of Lands, Forests and Mines,
Toronto. Ont.

Appendix No. 24.

SURVEY OF THE TOWNSHIP OF ORKNEY, DISTRICT OF ALGOMA.

SAULT STE MARIE, ONT., January 20th, 1914.

Sir,—We have the honour to submit the following report on the survey of the subdivision of the township of Orkney, in the District of Algoma, made by us under instructions from your Department of July 2nd, 1913.

We arrived at Franz on the Canadian Pacific Railway on the morning of July 13th, and proceeded northward on a construction train to Oba on the Algoma Central Railway. From this point we canoed down the Little Albany river to the south-east angle of the township of Orkney and commenced work on July 18th.

We ran our concession lines and side lines in accordance with instructions in the regular way. An error in chainage was made on O. L. S. Speight's meridian, and the lines between the second and third concession and the fourth and fifth concession were cut for a distance of four (4) miles each, from points fifty (50) links too far south. We ran these lines over again in their correct positions, which we now feel was a mistake. However, as these lines exist in the field we show them on our notes.

PHYSICAL FEATURES.

The entire area which we covered was gently undulating country, heavily wooded with poplar, balm of gilead, spruce and white birch. There are no outcrops of rock of any moment to our knowledge in the township. We only encountered three small lakes in cutting our lines and did not discover any within the limits of the lots, aside from these.

SOIL.

Practically the entire area within the township of Orkney is good agricultural land. In the lower areas, strong clay loam is covered by humus to a depth varying from three to twelve inches. Fully half the township, however, is clay loam without any appreciable covering of decayed vegetation and could be farmed at the present moment without drainage.

TIMBER.

The prevailing tree is certainly the poplar, which grows to a great height on all ridges and dry land. In the muskegs there is a considerable quantity of spruce which is for the most part small in size. Besides these two trees there is a considerable growth of birch, balsam, balm of gilead. There is no brule and our timber plan is uncoloured.

WATERS.

The Missanabie river runs through the length of the township and is joined by a tributary of considerable size, the Mattawitchewan in concession 5. The flow of the Missanabie river at low water period, we would judge to be about five hundred cubic feet per second. There are, however, no falls within the township and no rapids of sufficient drop to warrant water power development. There are only three small lakes, all of which are shallow with marshy shores.

FISH AND GAME.

In the Missanabie river we caught, by means of a net, pickerel, pike and suckers. We learned from the Indians that there were also speckled trout to be got in certain places. There are numerous moose and black bear in the woods, also rabbit and partridge in great numbers.

Accompanying this report we submit plans, field notes and account in triplicate.

We have the honour to be, Sir,

Your obedient servants,

(Signed) LANG & ROSS,

Ontario Land Surveyors.

The Honourable the Minister of Lands, Forests and Mines,
Toronto, Ont.

Appendix No. 25.

SURVEY OF THE TOWNSHIP OF SCHOLFIELD IN THE DISTRICT OF ALGOMA.

• PEMBROKE, ONT., October 30th, 1913.

SIR,—I have the honour to submit the following report on the survey of the township of Scholfield, in the District of Algoma, in accordance with instructions dated July 3rd, 1913.

I commenced my survey by chaining and parting the south boundary which was run by O.L.S. Speight in 1910, from parts thus established the side lines were run north astronomically, the concession lines were run west astronomically giving the depth shown on the field notes.

The east boundary was run north from Speight's 10 mile post, a distance of 9 miles where I planted a post. The north boundary was run this summer by Speight and Van Nostrand after I had completed my survey, and they posted the north boundary of my township for me, and supplied me with the field notes of same, which I have included in my returns.

Wooden posts were planted at the corners of all lots and guide posts on the centre lines of the concessions. Bearing trees were marked for all lot parts, and recorded in field notes. Iron posts were planted alongside wooden lot posts where directed to do so by the instructions. All lines were well cut out and blazed.

I made a careful traverse of the Mattawitchewan river and of all the islands therein, marking a post for each, the notes of which are recorded in the traverse table. I only found one small lake in the township, which I also traversed.

A road allowance was left on each bank of the Mattawitchewan river and around the lake above mentioned.

Frequent observations for azimuth were taken.

TIMBER.

The township is thickly covered with timber, principally small spruce from 4 in. to 8 in. in diameter, with areas of poplar, balsam, tamarac, cedar and birch, scattered throughout, varying in size from 6 in. to 12 in. in diameter.

SOIL.

The soil generally is clay covered with moss from a couple of inches to twelve inches in depth. The north-westerly portion of the township is low and swampy, the north-easterly portion having the best land and being fairly level with a good clay soil. Along the Mattawitchewan river the land is rolling with frequent outcrops of rock.

MINERALS.

No economic minerals of any kind were found.

LAKES AND STREAMS.

Only one small lake was encountered, this being shallow with a muddy bottom, and no appearance of fish of any kind in it. The Mattawitchewan river is a turbulent stream with many rapids and numerous islands, only three of the latter being over one acre in area. Islands "S" and "T" in concession 1, lying between lots 29 and 31 being the most important. This stream is very shallow in depth during summer months making it difficult to navigate with canoes excepting in high water. During the spring freshet the water rises ten or twelve feet above the low water level, and owing to the small volume of water after the freshet has passed I do not consider that there are any sites suitable for power development.

FISH AND GAME.

In the early summer there is good trout fishing at the falls and rapids in the Mattawitchewan river. Speckled trout weighing about two pounds being occasionally taken. Pike of fair size were taken during the summer.

Moose were fairly plentiful.

Taken as a whole, I consider that about 75 per cent. of this township will be available for agricultural development, the timber being chiefly valuable for pulpwood.

Accompanying this report are, a timber plan, general township plan and the customary field notes, etc.

I have the honour to be, Sir,

Your obedient servant,

(Signed) HERBERT BEATTY,

Ontario Land Surveyor.

The Honourable the Minister of Lands, Forests and Mines,
Toronto, Ont.

Appendix No. 26.

SURVEY OF THE TOWNSHIP OF TALBOTT IN THE DISTRICT OF ALGOMA.

SUDBURY, ONTARIO, December 5th, 1913.

SIR,—I have the honour to submit the following report on the survey of the township of Talbott, in the District of Algoma, under instructions from the Department of Lands, Forests and Mines, dated July 3rd, 1913.

The township is situated on the line of the Algoma Central and Hudson Bay Railway, about eight (8) miles north of Oba, the junction of the Algoma Central and Hudson Bay Railway with the Canadian Northern Ontario Railway.

The south boundary of the township was run by O.L.S. Speight in 1910. The east, north and west boundaries were run by O.L.S. Sutcliffe and Neelands in 1912.

A road allowance of fifty (50) links was left along the boundaries, and a road allowance one chain in width between lot six (6) and seven (7), twelve (12) and thirteen (13), eighteen (18) and nineteen (19), and twenty-four (24) and twenty-five (25); also between concessions two (2) and three (3), four (4) and five (5), six (6) and seven (7), eight (8) and nine (9), and ten (10) and eleven (11). The lines were run in the centre of the road allowance.

The side road lines were run due north and south and the concession lines as chords of a parallel of latitude.

Posts were planted on the concession line, on the centre line of the road allowance and at off-sets of fifty (50) links north and south therefrom.

Eleven (11) iron posts were planted as required in the instructions at the following points:—

On the south boundary, at the south-west corner of lot twelve (12), and at the south-west corners of lots six (6), eighteen (18) and twenty-eight (28) in the fifth concession, and at the south-east corner of lot one (1) in the same concession, also at the same relative corner in the ninth concession. On the north boundary at the north-west corner of lots six (6) and eighteen (18).

The compass variation was found to be 6-degrees west.

The timber for the most part is spruce, varying from 4 in. to 10 in. in diameter. Along the south boundary and on the ridges there is considerable birch, poplar and balsam. There is no pine of any kind in the township.

The low ground is covered with a thick moss and black muck, the subsoil being clay. From the appearance of the borrow pits along the railway, boulders lie everywhere under the moss. The ridges are of sandy loam with some gravel, but generally good farm lands.

There are several lakes in the township: Irene and Wigwam lakes are deep with stony shores; Katsas lake is rather shallow and has sandy shore. The remaining lakes are shallow and dirty. Some of the smaller ones are simply mud holes. The creeks are shallow and muddy. All the water is quite dark.

Pike and pickerel are the only fish found in the lakes. Some of the smaller streams abound with trout.

There is very little rock in evidence in the township and no mineral at all was found. There are a few outcroppings of diorite in the south-eastern part of the township, and towards the north-west along the railway, some granite is

in view. The contact between the diorite and granite is in concession 8. Samples of rock taken at various places are forwarded with this report.

Accompanying this report are the plans and field notes, also my account in triplicate.

I have the honour to be, Sir,

Your obedient servant,

(Signed) J. RICHARD GILL,

Ontario Land Surveyor.

The Honourable the Minister of Lands, Forests and Mines,
Toronto, Ont.

Appendix No. 27.

SURVEY OF THE TOWNSHIP OF SHETLAND, DISTRICT OF ALGOMA.

LITTLE CURRENT, ONT., December 1st, 1913.

SIR,—I have the honour to submit to you the following report on the survey of the township of Shetland, in the District of Algoma, performed under instructions from your Department, dated Toronto, July 9th, 1913.

I proceeded to the work by Cochrane and the National Transcontinental Railway to the crossing of the Missanabie river, thence by canoes up that river and a large creek in the first concession. This creek empties into the Missanabie in the twelfth concession of Orkney.

I depended on getting Indians at Cochrane for the work as I had arranged, but found on my arrival there that hardly any were to be found. I also learned there that some of those employed on surveys and similar work were receiving 90 dollars per month and expenses. I therefore engaged men from the Lake Huron country which made my expenses for transportation unusually heavy. The fare by the contractor's train from Cochrane to the Missanabie River, 110 miles, is \$5.50 each way.

All lines were run with either a transit or solar compass. Nearly all the meridian work was done with a transit, and all the concession lines, except the south boundary and the last five lots in each concession, were run with the solar.

The lines were well opened up and blazed. Iron posts, 1¼ inches in diameter, supplied to me by your Department, were planted as requested at the south-west angle of lots 6 and 18 in concessions 1, 5 and 9, also at the south-east angle of lot 1 in each of concessions 5 and 9, and at the north-west angle of lots 6 and 18 in concession 12. There were not enough posts supplied to me to plant them at the other two corners indicated on the projected plan sent with the instructions.

Durable wooden posts, mostly spruce and cedar, and of required dimensions, 5 inches square at the ends of concessions and the intermediate ones, 4 inches square, were planted at the front angles of the lots. On them were marked "R" for road, and the numbers of the adjacent lots and concessions. The iron posts were similarly marked.

On the side roads no posts were planted at the rear of the concessions.

The country generally is level or gently undulating with an occasional gradual rise to about 100 feet.

The soil is nearly all a clay bottom overlaid with black muck of varying depths. In the west and north-west there are a few small exposures of granite. A few gravelly knolls and an occasional boulder were also seen in those directions. From careful observation it was estimated that at least 75 per cent. of the land in the township is well adapted to farming. This includes the swamp areas for which there is good drainage into the creeks. In the vicinity of the large creeks in the south half of the township the land is particularly desirable.

The timber is black and white spruce, poplar, balsam, white birch, cedar, balm of gilead, tamarac and a very few jack pines, and range in size from 3 to 15 inches in diameter. Most of the timber is large and merchantable, except the green tamarac which does not exceed 4 inches in diameter. In a number of the swamps good cedar to about 12 inches in diameter was found. In many places groves of very large poplar were seen.

No old brule country with small timber was met with, except in a few places near the west boundary.

The large creek in concession 1 is navigable in places for canoes. It is greatly broken with shallows and boulders. In the high water in the spring a great deal more of it is no doubt navigable. There are no falls on it of any importance.

There are moose but apparently very few caribou or deer. Pike and pickerel were caught in the large creek.

Great care was taken to thoroughly extinguish all our fires before leaving a camp.

I have the honour to be, Sir,

Your obedient servant,

(Signed) T. J. PATTEN,

Ontario Land Surveyor.

The Honourable the Minister of Lands, Forests and Mines,
Toronto, Ont.

Appendix No. 28.

SURVEY OF THE TOWNSHIP OF DRAYTON IN THE DISTRICT OF KENORA.

OTTAWA, January 2nd, 1914.

SIR,—I beg to submit the following report on the survey of the township of Drayton, in the District of Kenora under instructions dated July 14th, 1912.

After the completion of the work in the Mattawa District myself and assistant proceeded to Fort William via Canadian Pacific Railway, and to Sioux Lookout via Grand Trunk Pacific Railway.

On arriving at Sioux Lookout a party was made up not without considerable difficulty owing to men demanding such high wages. Eventually men were secured at reasonable rates.

The party then proceeded to Superior Junction by railway and packed the camp outfit down the Grand Trunk Pacific Railway to where it crosses the southerly boundary of Grand Trunk Pacific Block 10.

The work was carried on in a westerly and southerly direction, all traversing being carried on in conjunction with the blocking out so that both classes of work could be done to advantage.

Owing to stormy weather it was impossible to obtain as many observations as we would have desired without unnecessarily delaying the work.

Both north and south of the National Transcontinental Railway from lot 24 to lot 32 (both inclusive) the country has been burnt and the mining claim lines and posts obliterated, while farther away from the railway it was found very difficult to pick up any trace of some of these, especially to find any posts; however, posts were located on the following claims, viz., A.L. 527, A.L. 528, H.W. 780, S.V. 460, S.V. 461, S.V. 463, H.W. 762, H.W. 717, H.W. 719, H.W. 720 and B.J. 18, these having been plotted from data obtained in the field and the others being plotted from information supplied to us with our instructions, are found to check very closely. No traces of H.W. 715 or H.W. 716 were obtainable as all the area included in these mining claims was cleared, the timber being used for cordwood by the Northern Pyrites Mining Company, the brush being piled up waiting for a favorable opportunity to burn it.

ROCK FORMATION.

Generally speaking the township is rough and broken, being composed of diabase rock of the Huronian period. A great many mining claims have been taken up and considerable work has been done on them, the chief one being the Northern Pyrites Mining Company on Big Vermillion lake who employ from eighty to one hundred men continuously in taking out iron ore for commercial purposes. A few mining claims were staked out for gold, but up to the present time there are no producing gold properties in the township. In the reserve south of Grand Trunk Pacific Block 10, between Dobie's seven and eight mile post, a bed of clay suitable for making fire brick and pottery has been discovered, and we understand that a company has been formed to develop this clay proposition.

TIMBER.

In that portion of the township east of Minnetakie and Abram's lakes there is no timber of any commercial value and the part from lot 1 to lot 10 consists of brule, stunted spruce and underbrush. That portion of the township from lot 21 to lot 34, generally speaking, is covered with jack pine, spruce, balsam, birch and poplar of small pecuniary value. There are, however, two portions (shown red on timber plan accompanying this report) where marketable timber exists, the first is in concessions one, two and three, lots 21 to 27 inclusive, and consists of jack pine of large size, suitable for ties and piling. The second is in concession four, from lot 28 to lot 34 inclusive, and consists of red pine from 6 to 18 inches in diameter.

GAME.

The whole district abounds in game, principally moose, deer, caribou, mink, muskrat, ermine, otter and fox, while in the lakes a great variety of excellent fish is found.

WATER POWERS.

Abram's chutes in lot 16, concession four, at this point there is a drop of two feet with a large volume of water passing through a narrow gorge having on both sides high banks which lend themselves adaptable to the erection of a dam. Minnetakie lake is approximately one hundred miles in area, thus forming an admirable reservoir for the possible conservation of water. We did not make an examination of the westerly or southerly shores of this lake, consequently have no information as to the area of land that would be flooded by the erection of a dam. We estimate this power at eight hundred (800) horse power.

Pelican chute in lot 27, concession C, there is a fall of twelve (12) feet from the upper level to the lower level here, the shores of the Sturgeon river and island F.P. 99 are well adapted to the construction of dams. We estimate this power at thirty-five hundred (3,500) horse power.

Vermilion river falls in lot 31, concession A, the head here is seventeen (17) feet six (6) inches and has some large lakes behind it which ensures a constant flow of water over the falls. In February and March we estimated this power at six hundred (600) horse power, being at low water.

SOIL.

From lot 1 to 16 the land is generally rough and rocky with small patches of clay loam suitable for light farming. From lot 21 to 34, concessions 2, 3, and 4, the soil is composed of a sandy loam not very suitable for farming purposes, although in low places there are small patches of clay loam of a very fair quality. From lot 21 to lot 32, concessions I, A, B and C, the land is of a somewhat heavier clay loam and fairly suitable for agricultural purposes.

We beg to draw to your attention the fact that owing to the township being broken into two parts by Abram's lake, possible settlers would have to depend on transportation by boat to get in and out of the market town (Sioux Lookout). In our opinion the most feasible route for opening up the westerly portion of the township would be the construction of a road from Sioux Lookout southerly through the reserve to Pork rapids (lot 20, con. 2) thence westerly through con. 2 or con. 3.

The total cost of the survey of this township is \$9,422.75, of which \$2,550.00 is chargeable to 165 miles of traversing, being an average of \$15.00 per mile. The remaining cost \$6,872.75 being chargeable to land subdivision of which there was approximately 60,000 acres blocked out which is an average of 11½ cents per acre.

Accompanying this report are, a plan of the township on mounted paper, a timber plan on tracing linen, field notes, paylists and accounts.

We have the honour to be, Sir,

Your obedient servants,

(Signed) PATTERSON AND BYRNE,

Ontario Land Surveyors.

The Honourable the Minister of Lands, Forests and Mines,
Toronto, Ont.

Appendix No. 29.

SURVEY OF THE TOWNSHIP OF MALACHI, DISTRICT OF KENORA.

NEW LISKEARD, ONTARIO. April 25th, 1914.

SIR,—In compliance with instructions from you bearing date of August 13th, 1913, we proceeded with subdivision of Malachi township after completing outlines of Pelican, Malachi and Rice, and herewith beg to tender our report and accompanying plans and field notes of the same.

Through some misunderstanding your instructions were not forwarded from Kenora to Malachi as per our request to the party in Kenora with whom we made arrangements; consequently we were about ready to leave when we received same.

We immediately wired our Liskeard office to send first class chainmen, but it was difficult at that time to get all round men on short notice so we only secured one. Our assistant Mr. Gallagher and our Mr. Neelands each had charge of a gang of axmen working from the same camp, and starting from the south and east checked up in the usual manner by blocking off instead of running more than one day without a check.

We had as rear chainmen a three year S.P.S. man and an Upper Canada graduate now at S.P.S., while as head chainmen we used two of the most intelligent halfbreeds in our employ. As the country was quite rough in places we found considerable difficulty in getting chainage to check very closely, but we kept an accurate angular check on all intersections. The only line that we consider seriously out is the one between the 3rd and 4th concessions which was swung at the intersection of the 3rd side line and 3rd concession line on account of the chainage being 57 links long, and besides, having come over some rough country. However, we found later on that it would have been better to have depended on angles in preference to chainage, as the country was too rough for very accurate work. Our chainmen took time and care as the two gangs could not keep up to the axmen; the falling behind was in a measure due to our having several of the lines checked up. The principal errors found were in using shore chainage instead of triangulation points. The odd chainage in the case of the width of two lots which otherwise would have been the even forty chains was due to these mistakes being discovered when copying the notes.

On account of the north boundary of the township showing longer than the south in the outline work, we decided that the work would come out better to not give the full convergence to the side lines. This accounts for the distances on the north boundary between the side lines and the mile posts, being so nearly the same.

We found after having chained several of the concession lines across lots 1 and 2 that the first mile of the south boundary on the triangulation across Pelican Pouch lake must be in error. This was checked when traversing Pelican Pouch lake and found correct; the error being in the chainage across the front of Lot 2 in the 1st concession, and this accounts for the width of this lot.

We endeavored to keep all lines as straight as possible and if any slight change in bearing had to be made, to make same at an intersection.

All posts are either spruce, jack pine or tamarac or cedar, mounded with stones whenever stone was available—and this was mostly the case. Two bearing

trees were also used for each post and taken in such a manner as to accurately locate the post if lost.

Iron posts supplied by your Department, were planted at points indicated on plan and marked as shown on field notes.

Observations were taken at points shown on plan and as the time of the year made observations on polaris at elongation convenient, all observations shown were taken at this time.

AGRICULTURE.

The best land in this township lies south of Malachi, Duck and Marshy lakes. Of this, about two-thirds is sand or rock; the remaining third is thin spruce swamp with good land between it and the higher ground. Between Malachi and Burwash lakes there is a small area of good land which extends around Burwash lake to Jack lake. There are also small areas to the north-west and north-east of Muddy lake, south of Charles lake, east and west of Marshy lake, and east and north-east of Simpson lake. Between Malachi and Duck lakes there are also patches of good land. The sandy land in this locality is for the most part well timbered and with the ideal climate which it enjoys, should be fairly productive if properly worked.

That portion of the township surrounded by Duck, White, Pelican, and Marshy lakes is practically all bare rock or sand, on which blueberries grow in large quantities, but which is worthless from an agricultural standpoint.

West of Malachi lake, particularly in concessions 4, 5 and 6, there are small patches of fairly good land, and east of Pelican Pouch lake in the same concessions; but practically all the remainder of the township north of Duck lake, with the exception of island "F" and a point of land south-east of island "F" and around the south-west shores of Otter lake and the west shore of White lake, is very poor from an agricultural standpoint.

We estimate that there is possibly one-third of the land area of the township that is fit for agricultural purposes. Of this, one-half is a light sandy soil.

TIMBER.

Spruce, tamarac, poplar, birch, balsam, and jack pine covers most of the good land, while that portion that is of little agricultural value is covered with second growth poplar, birch or jack pine.

A section of country between Muddy and Precipice lake is timbered with jack pine, much of which is large enough for ties, and in a few years will be a valuable asset.

MINERALS.

No trace of any economic minerals was found—the entire country rock being of Laurentian granite; that part to the south being of a reddish color and containing glassy blue quartz veins, while farther north along the railroad it was of a greyish color, breaking readily along almost horizontal lines and presenting a rather striking banded appearance.

FRUIT.

Blueberries, wild plums and raspberries seem to thrive, although the latter two were not very widely distributed. The climate, however, seems adapted for growing berries of all kinds.

GAME.

We used the net furnished by your Department, with varied success, and found large pike and pickerel in Malachi lake; small pike in the other lakes; and suckers in Pelican Pouch. The natives informed us that white fish are plentiful in Malachi lake, but we saw no trace of them.

Red deer, caribou and moose seemed plentiful, and their trails lead from lake to lake over the entire township.

Ducks are very plentiful on Muddy and Marshy lakes, while prairie chickens were seen in considerable numbers on the bare rock and sand north-east of Duck lake. In the lighter timber through the northern portion of the township, partridge also are plentiful.

Coyotes were heard frequently, while mink, martin, porcupine and muskrats were seen occasionally. Rabbits did not seem as plentiful as in other parts of Northern Ontario, but on the whole we consider the township abounds in game.

SUMMER RESORT LOCATIONS.

On Malachi lake there are many places along the shore suitable for summer resorts; the sand beaches being very desirable, but much of the shore which is paved with small boulders slopes gently under the water.

The islands are mostly rocky; island "F" being the only fertile one. The large island "A" in the southern portion of Malachi lake is well timbered, but very rough. All the islands, however, could be used for resorts.

PHYSICAL FEATURES.

The country for the most part is rolling; all marshy lakes have a considerable area of flat or gently rising land around them—Marshy and Muddy lakes being typical of this class.

White lake, Charles, Jack and Dutch lakes have for the most part gently sloping shores with clear water, of considerable depth.

Otter, Black, Precipice, and the southern portion of Malachi lakes have deep, dark waters, but very clear when removed from its dark shores.

The waters of Pelican Pouch lake during August and September were covered with a thick green scum, giving it the appearance of a saturated solution of paris green. Under this scum the water was transparent and good for drinking purposes.

The creek which drains Malachi lake is navigable for canoes to Otter lake,

The narrows draining Pelican Pouch lake into Otter are interrupted by a waterfall of 10 feet and 3 inches in height, very easily developed, but capable of developing only 100 h.p. If all the natural discharge was held on Pelican Pouch lake and if water was raised another five feet by dam the horsepower could be increased by 50. These falls being situated just where the waters of Pelican Pouch lake discharge into Otter lake, is quite convenient to the railroad which

passes along the north shore of it. The construction of a saw-mill at this point could be economically accomplished, and with dead water over Pelican, Catherine and Marshy lakes, timber for lumber, ties, etc., could be quite easily driven or towed to the mill site.

The general character of the country is such that we would advise a careful inspection of same before too much is subdivided, as much time, money, and annoyance could be saved by subdividing only those portions fit for agriculture.

Trusting that the above report may supply the desired information and hoping that same meets with your approval.

We have the honour to be, Sir,

Your obedient servants,

(Signed) SUTCLIFFE AND NEELANDS,

Ontario Land Surveyors.

The Honourable the Minister of Lands, Forests and Mines,
Toronto, Ont.

Appendix No. 30.

SURVEY OF THE TOWNSHIP OF MATTAWAN IN THE DISTRICT OF NIPISSING.

OTTAWA, September 16th, 1912.

SIR,—I beg to submit the following report on the survey of part of the township of Mattawan, in the District of Nipissing, under instructions dated July 12th, 1912.

The party was outfitted at Ottawa and on the first day of August, 1912, left for Mattawa.

After questioning all the settlers in the district to be surveyed, it was found that the nearest post to the work that was known to any of them was that between lots 33 and 34, on the north side of the road allowance between concessions 7 and 8.

There the survey was commenced and by running a line on the approximate bearing, always looking for evidence of the true line and when such evidence was found these points were joined up by straight lines. In this manner the following intersections were obtained, viz.:

lots 10 and 11, concessions 7 and 8.

lots 15 and 16, concessions 7 and 8.

lots 20 and 21, concessions 7 and 8.

lots 10 and 11, concessions 9 and 10.

lots 15 and 16, concessions 9 and 10, and

lots 20 and 21, concessions 9 and 10.

Posts were planted at these intersections, the chainage between them carefully ascertained, and other posts were planted to mark the lot corners by proportioning the chainage according to that given in the original field notes.

Owing to the fact that lumbermen have been operating in this country for a great many years and also owing to the fires which have over-run this territory, evidence of the original lines has, in places, been completely obliterated.

A traverse was made along the concession lines across lots 11 to 20 and also on the road allowances between lots 15 and 16, and between lots 20 and 21. No traverse was made of the road allowance between 10 and 11, as the true line was not cut out all the way.

I enclose plans in duplicate, field notes and also accounts in triplicate.

I have the honour to be, Sir,

Your obedient servant,

(Signed) FRANK E. PATTERSON,

Ontario Land Surveyor.

The Honourable the Minister of Lands, Forests and Mines,
Toronto, Ont.

Appendix No. 31.

SURVEY OF THE TOWNSHIP OF STIRLING IN THE DISTRICT OF THUNDER BAY.

RENFREW, Ont., October 30th, 1913.

SIR,—I have the honour to submit the following report on the survey of the township of Stirling in the District of Thunder Bay, performed under instructions dated the 14th day of July, 1913.

In pursuance of instructions, I commenced my survey at a point on the west boundary of the township of Lyon, four miles south from the north-west angle of that township, this point being eighty-five links north of the post planted by Ontario Land Surveyor Bolton, to mark the line between lots 8 and 9 in the eleventh concession of that township.

From this point I ran the side line between lots 4 and 5 west astronomically and along it laid off concessions giving each concession a depth of eighty chains. I then laid out the township in the usual way, giving each lot a width of forty chains and each concession a depth of eighty chains. No road allowances were left in the survey of this township.

On the concession lines I planted substantial posts (wooden) to mark the angles of all the lots. All posts were planted accurately on the survey lines and two bearing trees were taken for each post planted, and where stones were obtainable, I placed a mound of stones around the posts.

As this township was laid out in single front concessions, therefore, the posts planted between lots where no side lines were run, that is between lots 1 and 2, 3 and 4, 5 and 6, etc., on the front of the second concession for example, having no connection with the side lines in the first concession, were, therefore, marked with the concession number on the west side only and the lot numbers on the north

and south sides and the same in all the other concessions. The posts planted between lots 2 and 3, 4 and 5, etc., where the side lines were run, refer to both concessions and were, therefore, marked with the concession number on both the east and west sides, and with the lot numbers on the other sides. On the west boundary I planted posts only at the intersections of the side lines with that boundary. I brushed out and chained the east boundary of the township, and in my chainage have shown the positions of all posts planted on this line in the former survey.

Where the front angle or angles of a lot fell in a lake or river, I projected and planted the post in the proper place and have shown in my field notes the position of such posts. Where the intersection of a concession and side line came in a lake or river, I planted a post above high water mark at each of the four points in which these lines intersected the shore of such lake or river.

In performing the survey the lines were well cut out and blazed. Astronomical observations were taken at least once a week on Polaris at elongation to verify the direction of my lines.

The field notes were kept according to instructions, giving first the east boundary, then the line between the first and second concession, next the line between the second and third concession and so on, then the side line between lots numbered 2 and 3, throughout the various concessions, then the side line between lots 4 and 5 throughout the various concessions and so on.

According to instructions I tied in my survey with the Canadian Northern and the Canadian Pacific Railways, and have plotted them correctly on my plan and have computed the areas of the several lots or parts of the lots through which they pass.

With a view of making the survey permanent in case of fire, I planted, alongside the wooden posts, iron posts, at the points indicated in red on the projected plan accompanying my instructions. These posts were marked with a cold chisel with the numbers of the lots and concessions, similarly to the wooden posts alongside which they are placed. The positions of these posts are shown in my field notes.

All waters within the limits of the township were surveyed and connected with my lines of survey, whether such waters were intersected by the concession or side lines run by me, or not. These surveys have been plotted on a scale of ten chains to the inch. The survey of Wolf river and the lakes in the township were carried out by means of the stadia, except in the case of lakes intersected by the survey lines, where the distances were obtained by triangulation in the usual way.

Accompanying this report is a plan on a scale of forty chains to the inch, showing the natural features of the country, also field notes of the township and a timber plan of the same.

Under date of August 23rd, 1913, I wrote Mr. Kirkpatrick to the effect that I was unable to locate the north boundary of the township of Dorion, this line forming the south boundary of the township of Stirling. The old blazes and marks had been obliterated by fire. I re-ran the whole of this line. Mr. Kirkpatrick replied under date October 17th, 1913, that I will, therefore, be allowed to charge the amount per mile as in the other parts of the township according to instructions. On my plan I have shown locations A.L.663, A.L.561, A.L.633 and E.D.405A according to instructions. I beg to report on the natural features of the country under the following heads:

TIMBER.

The greater part of the township is thickly timbered with spruce, balsam, poplar, birch, and cedar, varying in size from two to eight inches in diameter. In the north-easterly part of the township a considerable quantity of large cedar was encountered, running from ten to thirty inches in diameter. In the northerly half of the township, through concessions four and five there is a great quantity of spruce, four to ten inches in diameter.

SOIL.

Good agricultural land was met with in the south-easterly part of the township, this being in the locations mentioned above. This same soil prevails through concessions 1 to 5, from lots 1 to 6. The south-westerly part of the township traversed by Wolf river, is of no value as agricultural land except in a few isolated spots. It is for the most part very rocky with steep rocky hills. In the north-easterly part of the township there is some land of agricultural value, some clay soil being met with in this section. The central part of the township is of no value for agricultural purposes, it is very rocky. About the lake, shown in concessions 4 and 5, lots 8 and 9, there are precipices with from 150 to 200 ft. sheer drop. As shown in the notes, there are other such places to be met with in the westerly part of the township. The north-central part of the township is exceptionally good for agricultural purposes, the soil being for the most part of the same sandy formation as met with in the south-easterly part. The settlers in this south-easterly part of the township have met with considerable success in the cultivation of this land and it is to be pre-supposed that the soil in the parts mentioned above will yield to the same treatment. In general I would report that in my estimation about fifty per cent. of this township is available for agricultural purposes, including the locations above mentioned.

MINERALS.

No traces of minerals of economic value were met with in the survey of this township. The south-westerly part of the township has been thoroughly prospected and some claims staked out, but nothing to warrant favorable mention was met with by me, either in the part mentioned or in the other parts of the township.

LAKEs.

As shown on the plan and field notes, eleven lakes were met with in the course of the survey of this township. These were all traversed. They are, for the most part, deep and clear, well stocked with fish.

WOLF RIVER.

This river traverses the south-westerly part of the township, flowing in a general south-easterly direction and emptying into Lake Superior. It varies in width from half a chain to two and a half chains. It is, for the most part, very shallow. The current is quite swift, readings taken showing an average rate of flow of about three miles per hour. This river was traversed from where it enters the township on the west boundary to where it leaves on the south boundary. Four rapids were met with these giving a total fall of twenty-seven feet. Four

falls were also encountered, these giving drops of 3 ft., 18 ft., 21 ft., and 30 ft. respectively. This stream is available for power development, the most promising place being at the thirty ft. fall mentioned above, this being in lot 1, concession 5. There is a wagon road leading from this falls to the town of Dorion on the Canadian Pacific Railway. I have shown on my plan and traverse plan reservations for power development in concession 5, lots 1 and 3, and in concession 6, lot 3, these adjoining the most favorable power sites on the river.

GAME.

Signs of deer were quite plentiful throughout the township, as were also signs of moose, notably in the northerly part of the township. Rabbit and partridge seemed very scarce. There were many signs of beaver met with in the northerly part. The lakes, as mentioned above, were well stocked with fish, trout being very plentiful as well as pike. Wolf river, in particular proved to be a good trout stream.

Accompanying this report are field notes, index plan, general plan, chain-bearers' oaths and accounts in triplicate.

I have the honour to be, Sir,

Your obedient servant,

(Signed) J. R. ALLAN,

Ontario Land Surveyor.

The Honourable the Minister of Lands, Forests and Mines,
Toronto, Ont.

Appendix No. 32.

SURVEY OF PART OF THE TOWNSHIP OF GORHAM, DISTRICT OF THUNDER BAY.

PORT ARTHUR, March 17th, 1914.

SIR,—I have the honour to submit herewith the following report on the operations of the survey party under my charge, engaged in laying out additional lots to the north of Gorham township, viz., concession 7 and the western portion of concession 8 for agricultural purposes as per your instructions dated 14th April, 1913.

As instructed the north boundary of the township was re-run and chained, and posts planted at 40 chains west of the old meridians and marked for the north concession only. The retracing of the old lines was a very difficult and tedious undertaking, the original survey having been made 21 years before. Where the chainage showed an unusual discrepancy from the old notes these distances were checked by another set of chainmen. The production of the old blazed meridians northward likewise did not turn out quite satisfactory. In future work of a similar nature I would suggest running the meridians south from the new standard con-

cession and having the inevitable small jogs on the old concession line. The survey was commenced as advised, by running a line due north from about the centre of the township—the north-east corner of lot 9, concession 6, on the old survey—80 chains, and thence east and west astronomically across the township, along concession 8. An iron pipe was planted here as well as at each end of this concession. Small iron rods or pipes were also planted where the wagon road crosses the 6th concession, and the east boundary of lot 3, concession 7, as shown in field notes.

The land on the extreme eastern limit is very rough and rocky, but improves as we go west and doubtless much of it will be eventually taken up by those hardy and industrious pioneers of settlement of Finnish origin, who are making a success of their holdings in other parts of Gorham and Ware townships. A clearing has been started on the north half of lot 2, concession 7, adjoining the wagon road by a Mr. Dufault, who stated his desire to obtain and cultivate the same. The soil is sandy throughout with vegetation more abundant in the valleys of the numerous streams and lakelets. Some streams have been dammed by beaver, forming lakelets of flooded land which will likely revert eventually to the former river dimensions. As will be noticed on the plan the raising of the level of Hazelwood lake for Hydro-Electric purposes at Port Arthur has greatly enlarged the area, around the shores of which in concession 7 a road allowance has been provided for. Onion lake which has likewise been greatly enlarged for storage for Hydro-Electric purposes at Port Arthur, lies about $\frac{1}{4}$ mile north of lot 1, concession 8. Surprise lake on lots 14 and 15, concession 7, and 14, concession 8, in a prominent lake, 2 miles in length, abounds in pike and lies on the winter highway to the north-east arm of Dog lake. The waters of all these lakes are at times rather warm and of a slightly brownish tinge.

There is also Trout lake, one mile in length, on the western end of concession 7 and partly in the township of Ware, which, owing to its favorable sandy sloping beaches is being sought after as a summer resort. The trout here seldom attain any appreciable size owing to the close attention of sportsmen and others. A road less than two miles in length of easy grade would connect this beauty spot with the excellent Government road to the south admitting of rapid motor connection with the cities of Port Arthur and Fort William.

Another lake is Pike lake, $\frac{3}{4}$ of a mile in length on the north of lots 9 and 10, concession 7. A deserted shaft and forge indicated that this had been worked as a mining claim (gold?). It was surveyed long ago as 233 T.

I might here remark that our survey was entirely in the Huronian formation, the only other rock noticed being an outcropping of intrusive granite near the west end as shown in the notes. There were no visible indications of economic minerals and no unusual variation of the magnetic needle.

The timber plan submitted herewith shows the very mixed character of the forests. It would be difficult to note any particular area where any considerable quantity of merchantable timber prevails apart from the other varieties, which mentioned in order of precedence I would rank as follows, spruce, poplar, birch, jack pine, tamarac and balsam. The prevalence of windfalls indicate that fires have swept the greater portion of their area within the last 40 years.

The game in this region consists of the usual moose, deer, partridge, rabbit, duck, bear, porcupine and beaver, the latter of which are being recklessly slaughtered and will soon disappear unless there is a more stringent enforcement of the game laws. The sowing of wild rice as an encouragement for the ducks and restocking the lakes and streams with trout, which, in the past have been abundant, should prove a benefit.

Owing to the almost unprecedented rainfall of last spring and summer as well as the more attractive work on the colonization roads in the vicinity, it was almost impossible to induce the settlers to work on our survey party even at \$2.50 a day and board. Appearances are that labor will be much cheaper the coming season.

As I had previously traversed the Current river for the City of Port Arthur, I was enabled to save the expense of a survey of that difficult portion.

The survey work in this township was approximately as follows:

Miles of lot line run	32½
Miles traverse of lakes, etc., chained	8
Miles pacing and topography	5
	<hr/>
	45½

also cutting several miles of portages.

I have the honour to be, Sir,

Your obedient servant,

(Signed) A. L. RUSSELL,

Ontario Land Surveyor.

The Honourable the Minister of Lands, Forests and Mines,
Toronto, Ont.

Appendix No. 33.

SURVEY OF PART OF THE TOWNSHIP OF WARE, DISTRICT OF THUNDER BAY.

PORT ARTHUR, March 17th, 1914.

SIR,—I have the honour to submit the following report on the survey of concession 7 and part of concession 8, north of Ware township during the past year.

The conditions here are very similar to those prevailing north of Gorham township, the country, however, is not so broken up by lakes.

The soil in the eastern portion is sandy but changes to a clay in lot 7, which continues westward to the Kaministiquia river where rock is more in evidence than elsewhere. The better land lies in the eastern half adjacent to Gorham township and some good land will be found north of concession 7 along the river. Very little swamp was encountered.

Many of the lots will doubtless be located by those hardy and thrifty pioneers of Finnish origin who are settling upon the lands to the immediate south.

As shown on separate timber map the usual mixed spruce, birch, jack pine, poplar, tamarac and balsam abound. A considerable area of large timber exists in the western portion of concession 7 and several winter roads have been cut connecting therewith. Some of the good timber has already been taken out.

There were no visible indications of minerals of economic value and, except where there is intrusive trap rock at the Crooked rapids. As usual variation of the magnetic needle was noticed.

WATER POWERS.

A fall of fifteen feet in a few chains in the Kaministikwia river at this point may eventually be developed for water power purposes owing to the beneficial results of the controlling dams now in operation at Dog lake. The right-of-way for the transmission line from the Great Dog falls to Port Arthur should also be reserved in patents, as the survey operations of last year at this point indicate an early development of this valuable power for the benefit of the twin cities at the head of the lakes.

As Trout lake, as previously reported, in attracting attention as a probable summer resort and lies partly in this township, I might refer again to the advisability of reserving the adjacent lands for that purpose. As mentioned easy access can be had thereto for campers and settlers by connecting with the Government Road two miles to the south.

The western end of the township can be reached by the wagon road leading from the Canadian Pacific and Grand Trunk Pacific Railways at Kaministikwia, also by boat in the river.

The new order, re taking agricultural or mineral (timber?) locations, conditionally, might with advantage be applied to this township.

I have the honour to be, Sir,

Your obedient servant,

(Signed) A. L. RUSSELL,

Ontario Land Surveyor.

The Honourable the Minister of Lands, Forests and Mines,
Toronto, Ont.

Appendix No. 34.

SURVEY OF THE TOWNSHIP OF O'BRIEN, DISTRICT OF TIMISKAMING.

NEW LISKEARD, April 11th, 1914.

SIR.—In accordance with your instructions bearing date July 4th, 1913, to survey the township of O'Brien, I herewith present my report.

The soil in this township is apparently of good quality; in clearings made along the right-of-way, during the construction of the Transcontinental Railway, an excellent growth of timothy was seen, and the fire rangers at Kapuskasing river had fine vegetables. I believe that there is no part of the township, that will not be fitted for agriculture, though part of it will require drainage, particularly away from lakes and rivers. One thing observed was the high spring flood marks on the trees along the Kapuskasing and Woman rivers, one result being that in places where the land runs back level or with a gradual slope from the banks, it is submerged during the spring freshet. With the clearing up of the country these floods will be more severe.

Y L.M.

With regard to timber, that along the rivers and watercourses is of fair size, some of it running up to 18 and 20 inches in diameter, most of it spruce with considerable balsam of gilead and a sprinkling of birch and poplar, where the land is fairly dry. Away from the rivers, the timber is mostly small and will be useful only for pulpwood, the swampy condition of the land has no doubt something to do with this, and it cannot I think be laid to any defect of the soil.

This township will hardly likely be noted for its mineral production, there are no rock exposures except on points along the Kapuskasing river and at the falls on Woman river, and no traces of minerals of economic importance could be discovered in these exposures.

Upon the fishing, I am unfortunately not able to speak with authority, except in so far as the Kapuskasing river is concerned. We placed our net in this river but after several days succeeded in catching nothing but a few suckers. The rivers and streams of this township are of a muddy color and it is quite unlikely that fish will be found in them to any extent. I am told by the Indians that there are plenty of pike and pickerel in the lakes of this township of which there are several, the chief being Lily lake. This I was not able to confirm for on removing the net from Kapuskasing river it was found to be in such a condition from weeds and driftwood that it was impracticable to use it again. The lakes I have referred to are very pretty but are inaccessible, except on foot.

Moose are plentiful here as they are in all this section of Timiskaming. Several bears were seen and one of my men saw a red deer. Of other game and fur-bearing animals no traces were seen, but I understand from the Indians and trappers that I saw, that this is a good township for fur.

The National Transcontinental Railway passes through this township, entering it about midway on the east boundary and continuing in a north westerly direction. It crosses the westerly boundary of the township about one and three-fourths miles from its north-west angle. There are two railway stations within its borders, one at the Kapuskasing river and the other about a mile from the east limit of the township.

Observations were taken at regular intervals as are shown on the observation sheet accompanying this report.

Sixteen iron posts supplied by the Department were planted as follows:

- (1) On the south boundary of the township at intersection between lots 6 and 7.
- (2) At south-west angle of lot 18, concession 1.
- (3) On the east boundary at intersection between concessions 2 and 3.
- (4) At south-west angle of lot 6, concession 3.
- (5) At south-west angle of lot 18, concession 3.
- (6) At south-west angle of lot 28, concession 3.
- (7) On east boundary at intersection between concessions 3 and 4.
- (8) At intersection lots 6 and 7, concessions 3 and 4.
- (9) Intersection lots 18 and 19, concessions 3 and 4.
- (10) At south-west angle of lot 24, concession 7.
- (11) At south-west angle lot 6, concession 9.
- (12) At south-west angle lot 6, concession 11.
- (13) At south-west angle lot 18, concession 11.
- (14) At south-west angle lot 28, concession 11.
- (15) At north-west angle of lot 6, concession 12.
- (16) At north-west angle of lot 18, concession 12.

There was one post supplied in addition to those just enumerated, but it was unfortunately lost and I was unable to replace it.

The total area of the township is 51,970 acres, made up as follows:

Land in lots	49,413 acres.
Land in roads	1,040 acres.
Railway lands	164 acres.
Water (including islands)	1,353 acres.

All of which is respectfully submitted.

I have the honour to be, Sir,

Your obedient servant,

(Signed) C. H. FULLERTON,

Ontario Land Surveyor.

The Honourable the Minister of Lands, Forests and Mines,
Toronto, Ont.

Appendix No. 35.

SUPPLEMENTARY LIST OF LICENSED CULLERS, 1914.

(For complete list of cullers see Minister's Reports, 1911, 1912, 1913.)

<i>Name of Culler.</i>	<i>Post Office.</i>
Gordon, J. B.	Cache Bay.
Mathewson, O. R.	Blind River.
McCool, Daniel.	Sudbury.
Palmer, Fred.	Blind River.
Skead, Eric S.	Spanish Mills.
Sullivan, Michael.	Barry's Bay.
Swale, Wm.	Gillies Depot.

Appendix No. 36.

ALGONQUIN PROVINCIAL PARK.

Honourable W. H. Hearst, Minister of Lands, Forests and Mines:

I beg to hand you my report on Algonquin Provincial Park for the fiscal year ending 31st October, 1914.

Up to the time the deplorable war broke out Algonquin Park was the pleasure resort of a great number of people coming from all parts of the world, including Russia, China and Japan. Mr. Vladimir J. Generosoff, senior specialist of the hunting industry of the Department of Agriculture, St. Petersburg, Russia, was

sent here by the Russian government to study our methods of game protection and the management of game and forest preserves. As soon as war was declared most of the visitors were called home, and even here in the heart of our Canadian woods its blasting effect was felt. Orders for live animals, of which we have had a number, were all cancelled, and owing to the general depression and the fall in the price of furs it was decided not to take any pelts this winter. This, of course, very materially lessens the income from the Park, yet notwithstanding these facts we collected for fishing licenses, \$1,249.00; Live Animals, \$1,112.50; Rents, \$270.00; Furs, \$300.00; Cedar Timber, \$679.90; Fines, \$20.00; making a total of \$3,629.40. The cedar sold was to the Grand Trunk Railway for the construction of their summer camps on Big Island lake, which were completed in time for the summer's trade. This camp can comfortably take care of a hundred guests and while the cottages are most homelike they have every convenience, the sanitary arrangements are the best, and the entire camp is lighted with gas.

We seem to have fewer anglers and more who come for the sake of the life in the woods and the health to both body and mind to be derived from such a life. I feel that the Park is doing a good work as an educator of our people who are learning to enjoy a visit with the wood folk in their natural haunts more than the destruction of them. Fur-bearing animals have become very abundant, especially beaver and otter. Deer are plentiful and can be seen by all visitors with little trouble; in fact so tame have they become that they feed on the terraces in front of the hotel, and some good photographs have been taken of them there.

It is now recognized that owing to the increased demand and the steady encroachments which civilization is making on the waste places of the world inhabited by fur-bearing animals, a large part of the fur supply of the future must necessarily be got from animals bred in captivity or under control. Fur-farming is rapidly coming into favor, and the astonishing development of the black fox industry in Prince Edward Island has shown it to be capable of yielding large profits. The Department has thought proper to give Ontario fur-farmers an opportunity of obtaining such fur-bearing animals as are found in Algonquin Park in order to stock their ranches. These include beaver, mink, marten, fisher, otter, etc., but principally the first three. Special appliances have been devised for capturing the animals without injury or mutilation. The live animals sell for considerably higher prices than do the furs, since their capture and care involves not a little trouble and expense. Nevertheless, a fair revenue can be derived to offset the cost of administering the Park, and at the same time run no risk whatever of depleting the supply of fur animals.

A large cement building has been erected at headquarters to take care of live animals. It is 22 x 42 feet, all of cement with iron roof and iron partitions, and is supplied with running water and lit with gas, the work being done by our own men. The object of this is to keep the animals after capture till they become accustomed to being handled and fed before shipment, and to afford the hundreds of visitors to the Park an opportunity of studying the different animals. During the winter we hope to fill the pens with mink and marten, mostly the latter, and we hope next summer to have raised a number of young for shipment. The old animals will also be shipped to make room for others.

Complying with your instructions the wharf petitioned for by the campers was built and proved a great convenience. It is a floating wharf, built of sided cedar, and covered with two-inch plank.

There are sixteen summer cottages on Cache lake and two schools. The cottagers pay a land rental of from \$7.50 to \$15.00 according to the size of lot held. The schools pay a rental of \$75.00 for five acres. The boys' school is presided over by Prof. G. G. Brower of New Jersey, the girls' school of some fifty odd girls is under the care of Miss F. L. Case of Rochester, N.Y., and is, I believe, the model camp of America. On Lake of Two Rivers there is another camp, the Bordentown (N.J.) Military Institute, under the management of Prof. W. L. Wise. These camps are a splendid thing for the young people. I regret none of our Ontario people have taken this work up, financially and from an educational point of view it offers great inducements. We expect to have another such camp at Source Lake next year. Fishing during the past year has been good. Some fine specimens were taken: one fine salmon trout caught in Smoke lake by Lady Conan Doyle has been mounted and sent to her home in England. Nearly all the prizes offered by sporting journals won this year were taken by fish from Algonquin Park. A number of fingerling bass were put into Cache lake; they were in splendid condition when planted. I should like to see some more next year, also salmon and speckled trout, as it is important to keep the lakes near the hotels stocked, so that those who are not able to go far afield can have some sport.

I regret to have to report several bad fires, which although they did not destroy a great deal of valuable timber, ran over a large territory, a great deal of which had been burnt over some sixteen years ago. Of course the young growth was destroyed. Every possible effort was put forth to check these fires, but the continual dry weather and high winds constantly from the same quarter, made it almost a hopeless task. In nearly every case these fires were caused by the engines of the Grand Trunk Railway. It would almost seem necessary to make it compulsory to burn oil in the engines running through the Park. One year's loss would convert the engines into oil burners.

As instructed by you a gang of fifteen men and a team were last August put to work to clean up the debris on the right-of-way and for some distance into the woods on each side, the Grand Trunk people paying half the expense. A splendid job was made of it and the work continued until late fall, when the snow stopped it. I would strongly recommend the continuance of this work next spring and until the entire length of the railway within the Park limits is cleaned up. It will very materially lessen the danger from fire. I would also recommend building a telephone line along the railway through the Park a distance of some forty miles. This would cost in material between \$500 and \$600. The expense of putting it up would be very small as the work could be done by the Rangers. We now have telephones at headquarters and Joe Lake, and also have connection with Smoke lake eight miles to the south and Island lake ten miles to the north, using the wires of the Grand Trunk. These phones were of great assistance during the fires. With a phone in each shelter house between Rainy lake and Whitney our men could get in touch with headquarters quickly and report help wanted, etc. I think the Grand Trunk Company would not object to our using the poles along the railway for this purpose.

We had two bad fires on the limits acquired by the Government from the Munn Lumber Company. A great part of the section burnt over was old burn and slash, but some small pine was also injured. This was put up for sale, but owing to the great depression in the lumber business no offers were received. The hardwoods were not badly burnt, and I think in most cases will revive, it being

a leaf burn, that is to say, it burnt so rapidly with the high winds that it did not burn deeply. We had five shelter-houses burnt, three of these were old ones, and needed replacing, but two were good buildings.

The time of our men during the summer was taken up fighting fire and we had to hire a great deal of extra help to build two new shelters, a frame building at Mud lake to replace one burnt, and another a sided log building on Moose lake. These are both substantial edifices. Several portages were cut out. During the trapping season our men are kept patrolling the sections allotted to them and I feel that they have done good work. I am glad to report very few breaches of the law, and what there were did not constitute serious offences. A number of guns were confiscated and sent to Toronto, mostly taken from foreigners on the construction work of the Canadian Northern Railway.

There is not much lumbering going on in the Park this year. Mr. J. R. Booth has a small camp in the new section cleaning out a little that was left from last year, and McLaughlin Bros. of Arnprior are taking out some on the burnt section. Lumbering is, as a rule, very quiet all over the Province.

The Canadian Northern Railway which runs through the northeastern portion of the Park is well on to completion, and work trains have been running over it for some time from North Bay. This railway follows most of our large lakes in the north section and the Petewawa river and Grand lake in the new section. It will be a very popular road with the angler as the lakes and rivers in that whole section are full of the finest speckled and salmon trout.

Eight townships were added to the Park this year, namely: Edgar, Barron, Guthrie, Master, Stratton and Bronson, half of Fitzgerald, White, Niven and Clancey. I have visited these during the past year; they are mostly covered with a young growth of red, white and grey or Labrador pine (*pinus divaricata*.)

A supply of permanent metal signs for indicating the boundaries of the Park was received from the Department. These will be nailed to trees on the boundary lines, especially at points where they are crossed by trails, creeks or rivers; also on all boundary lakes, thus giving notice to all travellers or other persons interested when they enter the limits of the Park.

Deer are numerous all over the new section and beaver, mink, marten, etc., are still in evidence, notwithstanding this section has for years been heavily trapped. We secured a building at Basin Depot from Mr. M. J. O'Brien, the limit-holder, and fitted it up for a shelter-house. The four settlers who had squatted in the township of Guthrie have been satisfactorily settled with, and are leaving their places. I would recommend giving the ranger at Basin Depot a saddle horse, as the country is so open and traversed by so many roads he could quickly do the work of two or three men with a horse, and could come out quickly in case of help being required in case of fire. The total cost would not be more than \$70, and as there will be abundance of hay there, there would be no cost attached for feed; there will, of course, be stables and all the buildings we require when the settlers move out. One has already gone.

The Pembroke Lumber Company's limits have also been acquired by the Government and constitute another large tract upon which there is a lot of young pine growing for the people of Ontario.

Our staff has been composed of Superintendent and twenty-six men. I feel that our men have done good work, although it has without doubt been the worst year for fires since the establishment of the Park, and had not a great effort been put forth on the part of our rangers, a great deal more territory would have been destroyed.

Wolves are still a menace to our deer, our men succeeded in killing a large number of these pests and we propose during the coming winter to make a special effort to materially reduce their forces.

I have the honour to be, Sir,

Your obedient servant,

G. W. BARTLETT,

Superintendent.

Appendix No. 37.

QUETICO PROVINCIAL PARK.

QUETICO PARK HEADQUARTERS, KAWENE P.O., October 31st, 1914.

To the Honourable the Minister of Lands, Forests and Mines, Toronto, Ontario:—

SIR:—I beg to hand you my report for the fiscal year ending Oct. 31st, 1914, on the Quetico Provincial Park, of which I have the honour to be Superintendent.

I took charge of the Park in November, 1913, when it was transferred from the Department of Game and Fisheries to the Department of Lands, Forests and Mines.

At the time of transfer I found buildings as follows: A small house at north-west end of Eva lake, one and one-half miles from Kawene station on the Canadian Northern Railway, occupied at the time by Col. D. D. Young, warden in charge of the Reserve. This building was some six miles from the headquarters at French lake. The headquarters are situated at the east shore of French lake at the west end of what is known as French Portage on the old Dawson route from Port Arthur to Winnipeg.

The buildings at headquarters were a large log hut, 21 x 47 feet, a portion of which was partitioned off for a kitchen, the balance being used as a sleeping and living room for the men employed on the Reserve. A small cabin of two sections 12 x 14 each, was used as a warden's house; there were also a good storehouse and stable combined, 16 x 24, also several small temporary outbuildings.

I occupied the small cabins during last winter and portion of past summer until I could erect a proper house for myself. During the past season I built a house 26 x 36 of sided pine logs, with good roof of tin shingles, good basement, full size of the house, with sided cedar wall, all of the basement is below the surface of the ground. I placed in the basement a good furnace enclosed in a stone room 12 x 12 feet for protection from fire.

I also changed the men's apartments by building a kitchen at one side 17 x 21 feet, and converting the old kitchen into a comfortable dining room. I also put in a floor in all of the large buildings, and purchased iron cots and mattresses for the men. This year I had the whole of the buildings plastered with mortar.

I erected a small stable 16 x 20, a small frame blacksmith shop, and two small out-buildings. The building used as stable and storehouse I had cleaned out from top to bottom, put in a new sided top floor and transformed it into a tool and provision storehouse. I intend during the winter season to erect an ice house, which is very necessary. During the summer season we have to depend on getting our drinking water out of French lake, which contains good clear water.

I also built a good shelter hut on Eden island in Quetico lake, one at Johnston's Point on Basswood lake, one at Darby's Island at the east end of Basswood lake, and one at the foot of Pickerel lake. The old shacks at Eden island and Basswood lake were unfit for habitation. All new huts built are 16 x 20 feet of hewn and peeled logs, with pitch roof covered with paroid roofing, well floored, and contain bed, stove, table and benches or stools. They are made warm and comfortable, and are kept clean by the men. I also had repaired old shacks at Sturgeon Narrows, lake LaCroix and Kinnipi lake. Will also erect this winter small huts at Robinson, Beaverhouse and Cache lakes. These huts are for use over night and during short periods that the rangers may be in the vicinity, and also to avoid having to carry tents when on patrol.

It is very difficult to get in supplies and building material to the Park during the open season. The road over the portage one and one-half miles from Kawene station to Eva lake is very rough. I built a barge on Eva lake to transport my horses and supplies to and fro. The portage over which we pass from Eva lake to French lake is twenty-seven chains in length over a very high hill.

Owing to my time being taken up during the summer with building operations and travelling over the several beats, erecting shelter huts, etc., I did not succeed in looking over the ground on the portages out to the station, as I intended, with a view of securing a better road, but will do so as soon as possible. I cut a new winter road from French lake to Eva lake by way of Brown's lake, so as to avoid a long round by the summer route and also avoid portaging at open narrows. I cut trails from French Portage to Windigoostigwan lake one and one-half miles, and one from Windigoostigwan river to Baptism lake, two miles, Baptism to Cache lake, three miles, also from Pickerel to Jessie lake and from Basswood lake to Small Inland lakes. At Eden Island the two rangers stationed there have cleaned out several old trails besides cutting new ones from Quetico and Beaverhouse lakes to inland points. The Park staff during the past year has been composed of eleven men, one of whom came on lately, a superintendent and a housekeeper. During the trapping season the work of the staff is in patrolling the sections over which they have charge to prevent illegal trapping and hunting as well as other breaches of the Park laws.

My men travel in pairs; when building huts four go together until the heaviest of the work is done, when two go on patrol. In many cases the area covered contain many water stretches and are easy of access, although in some portions many portages are encountered making travel, especially during fly season, very bad. I feel that I have a good staff and that they have done excellent work during the past season, when it is considered that they had to undergo many hardships in getting things into shape, did without shelter huts or trails, and had to portage outfits and supplies through snow and over rough ground. I fully realized when I came here that we had lots of hard work to do and expect much more before we can get things in proper shape.

I do not consider that much illegal trapping was done last season. We picked up some steel traps along the boundaries and destroyed several dead-falls, presumably set by Indians. As it is now well known by outside trappers and Indians that the Park is patrolled by rangers at all seasons there is not likely to be much trapping or hunting done. I have instructed my rangers not to relax their vigilance and not to hesitate to arrest anyone whom they find breaking the Park laws. I have warned them especially in regard to American Indians coming across the border to trap in Canadian territory, but to endeavor to keep on good

terms with our Canadian Indians. It is a difficult matter to distinguish between Canadian Indians and those from the American side. Some of them claim to belong to both sides and to draw treaty money from both Governments, and unless personally known to the rangers they pass themselves as Canadian Indians. There are no Indians at Reserve No. 24-C near the eastern boundary, but quite a few on Reserve 25-D at the mouth of the Namakan river. They do not seem to cultivate any portion of the Reserve, but subsist by hunting and fishing. I endeavored last summer to engage two of them as fire rangers but could not do so; they do not seem inclined to work.

I am pleased to inform you that the season has passed without any serious fire in the Park. One small fire occurred on a small island in Elprior lake and one along the southern boundary, both of which were extinguished before any damage was done. Another fire occurred at Johnston's Point on Basswood lake. This fire was started by some unknown person or persons during the month of August in the place where rangers Johnston and Darby did their cooking while erecting a shelter hut on the point. It is supposed these parties went off leaving the fire burning. The rangers were absent at the time up Basswood river. Returning they noticed the fire but could not get it under control until the newly erected walls and roof of the hut were destroyed. They were fortunate enough to save their blankets, provisions, tools, etc., by taking them to the water. About ten pine trees only were burned. They had to rebuild the walls of the hut.

My men during the summer months take every precaution to prevent fire by constantly patrolling their beats and looking after tourists, of whom quite a few passed through the Park last season. So far we have not experienced any trouble from tourists. They are in all cases provided with copies of the Park regulations, and we give special warning in regard to fire. In addition to our regular staff we had eight fire rangers on duty during most of the season.

In regard to the timber in the Park, it is chiefly red, white and jack pine, of excellent quality, and in immense quantities, especially white pine. The balance of the timber is spruce, balsam, cedar and birch. Most of the hills in the eastern portion over which fire ran some years ago, are covered with scrub spruce and jack pine, making an excellent shelter for game of all kinds.

The red and white pine in the vicinity of Jean, Quetico and Beaverhouse lakes and in several other portions of this Park is wonderful; as an old bushman I must say that I have never seen any timber to equal it. The Province has an asset worth protecting. The natural waterways of the Park as well as the splendid lakes of clear water will, in time, make it an ideal summer resort for tourists.

Many tourists passed through the Park last summer, mostly Americans, but some from Brandon and Winnipeg, Manitoba. Some parties have requested the privilege of building cottages or leasing portions of land for summer resorts. This I would not approve of except in localities near headquarters, or in places where there is no valuable timber. I would advise keeping the Park in a state of nature as much as possible.

I would advise an extension of the Park boundary to the North by taking in that section of country commencing at a point where the boundary line between the districts of Thunder Bay and Rainy River crosses the Canadian Northern Railway, thence following the line of railway westerly to a point east of the village of Atikokan, opposite the northeast corner of Timber Limit G-43, thence southerly along the east line of said limit to where it touches the north shore of Batchewaung lake, thence following the present boundary west from there. In this terri-

tory are many small lakes, some of which are not shown on the maps, and many containing great quantities of trout. It is also the resort of many moose and red deer, as well as smaller game animals.

Moose are very plentiful, great numbers of them being seen during summer, French lake, French river, Pickerel lake, Maligne river, Quetico lake and river being the principal places where moose abound. Several came on the beach and in the bay opposite the buildings last summer. They are now all in the hills north of French and Pickerel lakes. Many moose calves were seen also during the season. Red deer are numerous. Many were seen during summer along the shores of lakes and rivers. Partridges are scarce. I am inclined to think this is on account of the numbers of foxes, coyotes and skunks in the woods. Coyotes are very numerous. Wolves have often been seen; tracks of these animals are often noticed on the ice in winter. I am encouraging my men to poison them when possible. One of my rangers got one on the Maligne river last winter; in several cases bait was taken also. This season we expect to be in a better position to get them.

Beaver are increasing rapidly; where only one house or pond was to be seen last year many are now seen. Mink are often noticed in the streams. Some otter trails were observed last winter. I have not yet seen any muskrat or signs of them. Weasels are plentiful. Bear signs are very numerous. Two moose calves were killed by bears in June last at Pickerel lake.

The lakes are well stocked with trout, pike, pickerel, whitefish, and some other varieties of fish. Only in two lakes in the south are bass to be found. There are no speckled or brook trout in the Park. I would strongly urge the placing of speckled or brook trout and bass in some of the lakes and rivers near headquarters. The lakes and rivers are clear and clean, ideal breeding places for trout and bass. Ducks are very scarce. A few of the eatable varieties were seen in spring and early summer, but disappeared later on. Sawbills and other fish-eating varieties were the only ones remaining all season. There are no feeding grounds for them in the lakes. If wild rice or celery were placed in some of the lakes, I have no doubt many more ducks would breed and remain in the district.

Owls are very large and numerous in the Park. I shot two large hawks on a nest last spring and found several portions of partridge and a portion of a young fawn. I have advised my rangers to kill and destroy owls and hawks whenever possible. Another menace I see in the Park is the porcupine. In many places I have noticed pine trees girdled by those animals, noticeably so in the pine hills on Eden island and along Pickerel lake. I would advise killing off these animals, especially in pine forests.

During the present winter, or as soon as the ice is fit for travel, it is my intention to go over as much of the Park as possible and see for myself some portions of the interior not yet visited, locate sites for new shelter huts and portages, and obtain as far as possible an idea of the lie of the lakes and streams, kinds of timber, etc. This travelling must be done with snowshoes and toboggans, taking tent, provisions and blankets along. I find it is impossible to obtain a dog team in this country.

I have the honour to be, Sir,

Yours very respectfully,

A. J. McDONALD,
Superintendent.

Appendix No. 38.

REPORT OF THE FORESTRY BRANCH.

PARLIAMENT BUILDINGS, Toronto.

SIR,—I have the honour to submit the following report of the Forestry Branch for the year ending 31st October, 1914.

The work of this branch has been devoted largely to questions of reforestation. The Provincial Forest Station in Norfolk County, which was established in 1908, now contains 1,580 acres, of which about 50 acres are devoted to Forest Nursery work.

The Forest Nurseries at this station now contain the following stock:—

White Pine	409,000
Scotch Pine	205,500
Red Pine	137,280
Jack Pine	101,400
Bull Pine	19,100
White Cedar	47,000
Hard Maple	18,000
Soft Maple	20,000
White Ash	22,000
Black Walnut	9,620
Black Locust	5,000
Red Oak	5,000
Carolina Poplar	7,250
Black Cherry	2,850
Miscellaneous	96,600

Net Total 1,105,600

A portion of the nursery stock grown here is used for distribution throughout the province to those desiring to make forest plantations or reclaim waste land. During 1914 over 400,000 plants were sent out to other parts of the province for experimental or demonstration planting.

This nursery also provides the planting material for experimental work at the local Forest Station. During this last season 50 acres of various types of land were planted. Plantations have been made with White Pine, Red or Norway Pine, Scotch Pine, Larch and Chestnut.

Forest planting will, to a large extent, be done upon the poorer, non-agricultural soils. The coniferous trees, and especially the pines, have proven the most satisfactory for such planting. In the next few pages a brief description is given of the operations of nursery work and final planting, as carried on at the Norfolk Forest Station.

Artificial reforestation is done by broadcast sowing of seed, by planting the seed on prepared spots and by the use of nursery grown plants. Planting with nursery grown stock has largely replaced methods of direct seed sowing. This is especially true of such species as our native pines.

Forest seeds may be obtained from dealers or collectors, and are satisfactory if the origin of the seed is known. White pine seed may be obtained at prices

ranging from 75 cents to \$2 50 per pound. Red or Norway Pine may be obtained at prices ranging from \$4.00 to \$7.00 per pound.

Seed beds are made four feet wide and thirty feet long, with a protective covering as shown in Fig. I. This lath screen, giving half shade, is raised twelve to eighteen inches above the beds, and is required to protect the seedlings from the excessive summer heat.

Seed may be sown in autumn, or in spring as soon as the growing season opens. The seed may be sown broadcast or in rows. The method followed at the Norfolk Nursery is to sow in rows about four inches apart. The depth of covering the seed depends upon the nature of the soil. One-eighth to one-quarter of an inch should be satisfactory, but this is largely a question of being able to keep moisture at the surface during the germination of the seed. Evergreen seeds will take from fifteen to twenty-four days to germinate.



Fig. I. Showing view of seed-beds at the Provincial Forest Station, showing use of woven lath screen.

The chief difficulties to be met are attacks by birds, as the plants are just showing; sun scorch from allowing the ground to dry out too much or through lack of shade, and attacks of "damping-off" fungus, which is often troublesome during hot sultry weather when there is too much moisture in the soil.

The seedlings are usually left in the seed-beds for two years. The protective screens may be taken away at the end of the first season. At the end of the second season the White Pine plants are three to five inches high and are ready for transplanting to nursery lines as shown in Fig. III. This transplanting prepares the plant for final planting, in that it produces a stocky plant with a compact root-system, as shown in Fig. IV.

In some cases the one or two-year old seedling is used for final forest planting without this special preparation. For planting upon favorable soils, where protection exists and where the struggle is not too severe, the one-year old Scotch Pine or the two-year old White Pine seedling may be used. In much of the forest plant-



Fig. II. Showing two-year-old White and Red Pine in seed-beds, with shades rolled back.



Fig. III. Showing transplanted Scotch Pine in nursery lines. This material is ready for final planting upon waste lands.

ing being done by this branch, where exposed sites are being planted the sturdy transplant is desirable.

In forest planting two men usually form a working unit. One man prepares the hole with the mattock or spade and the other sets the plant. The plants are usually carried in pails half filled with water. This is done to prevent drying out of the roots and is a very necessary precaution. Where the planting area is covered with turf and not too rough, it is often advisable to make a shallow furrow with the plow as shown in Fig. V. The plants are spaced from five to six feet apart each way. At five feet apart an acre requires 1,742 plants. In forest planting it

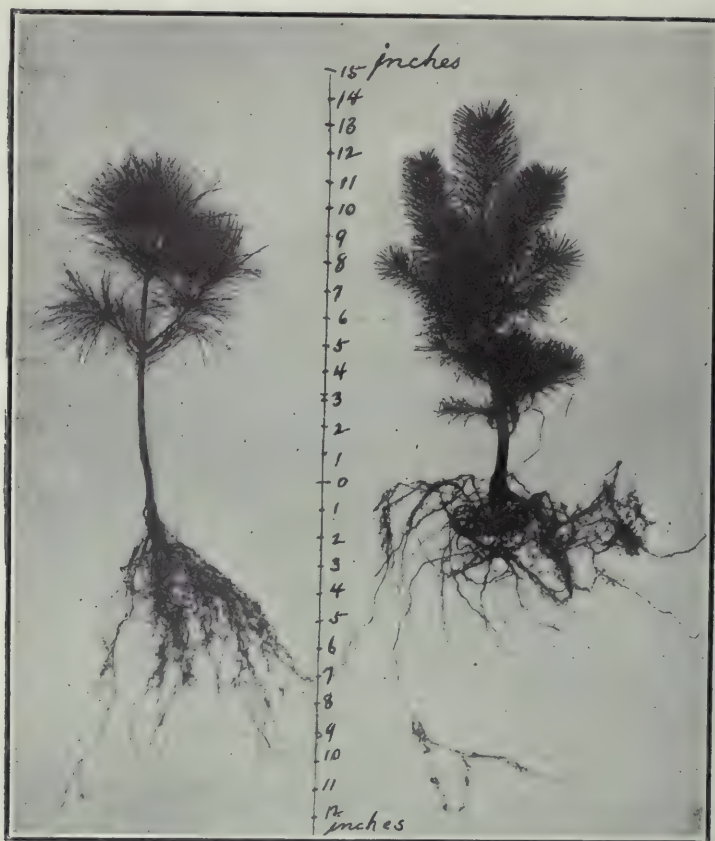


Fig. IV. Showing three-year-old transplants of White Pine (on left) and Scotch Pine ready for final planting.

is necessary to plant many more trees than will eventually be found in a mature forest. If trees with clean, tall stems are desired, it will be advisable to plant close, in order to kill off the side branches and force the trees in height growth. Close planting also gives earlier soil protection, preventing the growth of grass and weeds.

It has been found that three-year old White Pine transplants ready for final planting cost about \$3.50 per thousand. In planting gangs of ten or twelve men the men should average 1,200 plants per day. Based upon these figures the following



Fig. V. Showing the use of shallow plow furrows in forest planting.



Fig. VI. Planting forest trees with mattock where ground is rough and stony and unfit for use of plow.

is an estimate of the cost of planting upon favorable soils as found at the Norfolk Forest Station:—

One acre, planted 5 x 5 feet, requires 1,742 plants.

Cost of 1,742 plants, at \$3.50 per 1,000 \$6 10

Cost of labor in planting 1,742 plants, at \$2.00 per day .. 2 90

Total cost per acre \$9 00

One acre, planted 6 x 6 feet, requires 1,210 plants.

Cost of 1,210 plants, at \$3.50 per 1,000 \$4 24

Cost of labor in planting 1,210 plants at \$2.00 per day .. 2 02

Total cost per acre \$6 26

The cost of restocking lands such as are being dealt with in Norfolk, should not average over \$8.00 per acre and with better organization this cost can be lowered. To plant cut-over and burned-over areas which exist in the central part of Ontario the cost will run from \$8.00 to \$12.00 per acre.

At the present time it is not feasible to undertake artificial reforestation upon the burned-over lands in the newer portions of Ontario. It will be necessary to have more intensive organization and better insurance against fires before this problem can be undertaken. When our people are fully educated to the necessity of protecting forest growth, the methods and technique of forest planting will be the least of our problems in restocking those denuded areas upon which natural growth of value has failed to reproduce.

In this connection it may be of interest to outline the life history of one or two of the typical northern trees. This will be done with the idea of explaining the methods of nature in producing forests. The life history of the White Pine will do for that class of trees known as Conifers or Evergreens.

White Pine trees begin to produce seed at from twenty to forty years of age. The seed is produced in cones, which are borne on the terminal branches in the upper parts of the tree. These cones are two seasons in coming to maturity. They mature at the end of August of the second year. The scales of the cone open and release the seed through the action of the sun and drying wind. All seeds of any value have fallen from the cones by the middle of September, and the empty cone may remain upon the tree for weeks or even months.

The frequency of seed years for White Pine depends upon climatic conditions and ability of trees to obtain plant food. Heavy seed years seem to occur through certain regions every five to seven years. In Southern Ontario large, healthy roadside trees frequently produce seed year after year.

One pound of White Pine seed may be obtained from one to two bushels of cones, depending upon the vigor of the parent tree and upon seasonal differences. One pound of seed contains from 25,000 to 30,000 seeds, depending upon the size and quality of the cones.

The seed of the White Pine is about one quarter of an inch in length and is provided with a thin, delicate wing, as shown in Fig. XI. The dry, warm winds of early September open the cones, releasing the winged seed, which is often carried a considerable distance before reaching the ground.

Owing to many enemies only a small proportion of seed reaching the ground ever germinates and grows. The seed is much sought after by birds, squirrels and mice. The plants produced by the small proportion of seeds which germinate after reaching the ground have still another struggle. The White Pine seedling is at first a



Fig. VII. Shifting sand at the Provincial Forest Station planted with Scotch Pine and Jack Pine in 1910.



Fig. VIII. The 1910 plantation as shown in Fig. VII after two seasons of growth. This photo was taken in 1912.



Fig. IX. Sandy ridge at Provincial Forest Station being planted with Scotch and Jack Pine in 1909.



Fig. X. The 1909 plantation as shown in Fig. IX after six years' growth. This photo taken in 1914.

delicate plant, as shown in Figs. XII and XIII. At one year of age it is only about two inches high with a delicate tissue. During this first season the young plant is subject to injury by parasitic diseases and sun scorch, and is subject to attack by birds. When two years old the seedling is only three to five inches high. Light ground fires, which apparently do little damage, destroy countless numbers of these small plants. For the first three years the growth of the seedling is very slow and it is subject to many enemies. It will readily be seen that under the most favorable conditions only a small percentage of the seed falling to the ground ever produces young pine large enough to be seen by the casual observer.

Another factor influencing the chance of obtaining reproduction of White Pine is the question of the vitality of seed. Pine seed under the most favorable condi-



Fig. XI. Showing White Pine cones. Mature two-year-old cones below and small one-year-old cones at tip of branch.

tions of artificial storage, soon loses its power to germinate and grow. Pine seed lying, under natural conditions, where it is subject to various changes of moisture and temperature would not be likely to grow after five years.

Some of the outstanding features in the life of the White Birch will do to show the ability of this class of trees to reproduce. The Birch produces its seed in a cone-like fruit, which often remains on the tree throughout the early part of the winter. Unlike the White Pine the seed does not all fall to the ground in early autumn, but gradually falls throughout the winter months. It is a common sight to see the small, winged seed of the birch being carried for miles on the surface of the snow. This is one factor explaining the prevalence of Birch on burned and cut over areas.

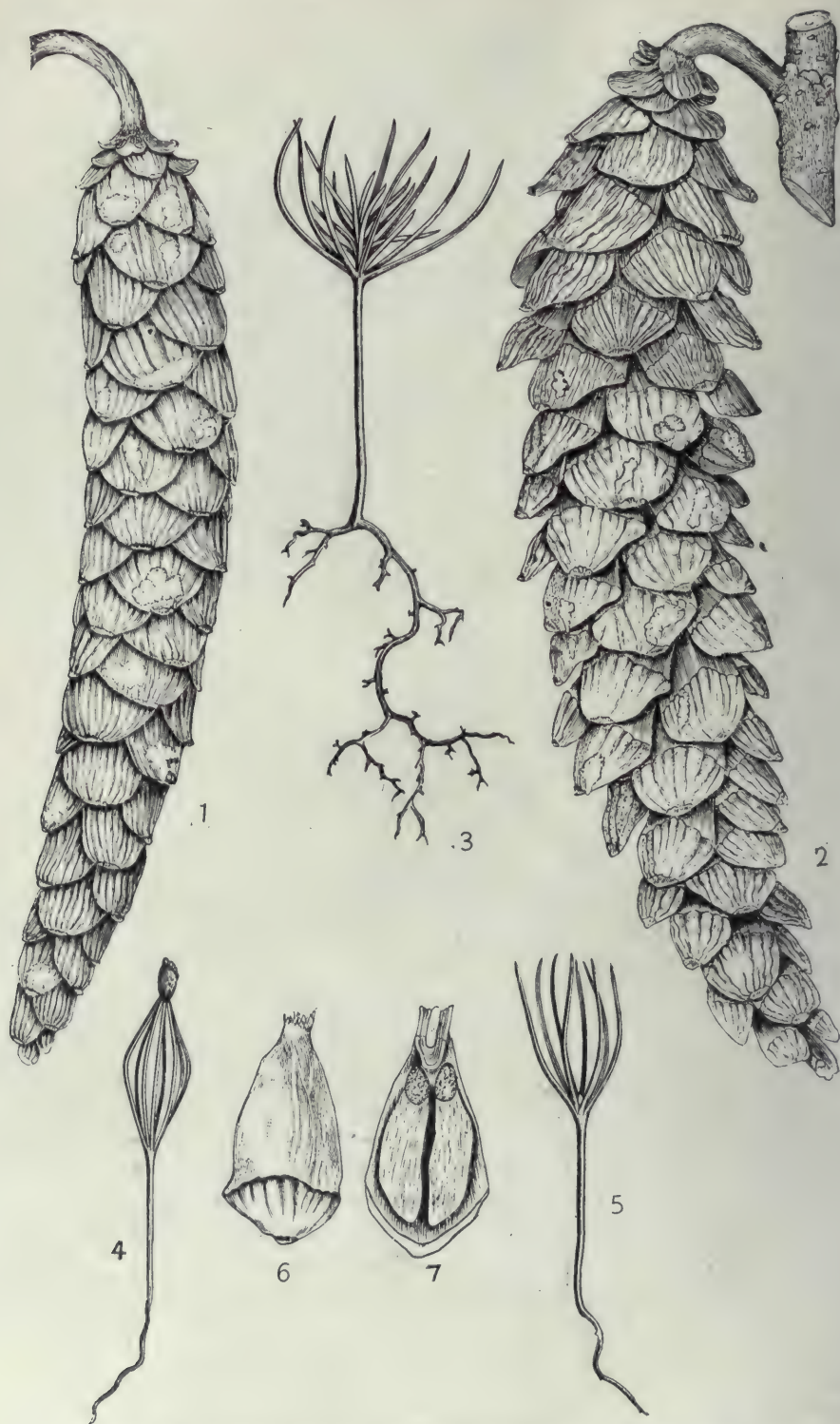


Fig. XII.—1 and 2. Showing mature White Pine cones. 3. Showing one-year-old seedling. 4 and 5. Seedling just after germination. 6. Individual scale from cone. 7. Scale showing winged seeds.

The Birches are also able to reproduce from the stump or roots. This sprout growth often follows light fires and cutting operations. The ability of Birch, Poplar and many of the hardwoods to reproduce by this method explains why many cut or burned over areas reproduce with Birch, Poplar and other hardwoods.

The Pines can reproduce only by the seed method and are therefore handicapped at first in the struggle to take possession of cut over areas. The Pine has, however, the advantage of being able to start under the shade of the Birches and Poplars; to gradually struggle through, and, owing to the short life of the Birches and Poplars, to eventually overcome them.

There are few of our White and Red Pine areas which would not become restocked if it were possible to prevent fires from sweeping over them. Many of the regions which were cut over in the earlier days of lumbering have produced splendid second growth White and Red Pines. In these earlier operations only the choice



Fig. XIII. Showing one, two, three and four-year-old White Pine plants. Three and four-year-old plants are transplants.

trees were taken and a large percentage of seed trees were left. These areas testify to the ability of the Pines to hold their own in the struggle, if given a reasonable chance.

I wish to point out, however, that with the present methods of cutting, where everything in the shape of pine is taken out, it is not likely that we will obtain satisfactory new growth. Natural reforestation cannot bring back Pine upon regions in which no seed trees have been left. If Pine is desired upon these areas we shall eventually have to depend upon artificial methods or forest planting.

Respectfully submitted,

Minister of Lands, Forests and Mines.
Ontario.

E. J. ZAVITZ,
Forester.

Appendix No. 39.

REPORT ON THE CONSTRUCTION OF ROADS IN NORTHERN ONTARIO.

(Under the Provisions of 2 Geo. V., chap. 2.)

TO THE HONOURABLE, THE PREMIER.

SIR,—I have the honour to submit a General Report of the work done in the construction of roads in Northern and North-western Ontario during the season of 1914, in conformity with the provisions of 2 George V, Chapter 2.

The season's work commenced about the 1st May, except in a few instances where it was found profitable during the winter season to crush and haul rock material and gravel, construct bridges, and take out timber.

The season was the most favourable we have had for road construction since it began in 1912; during the months of July, August and September, the weather was dry, and good progress was made on the work.

The operations extended from the Petawawa Military Camp on the Canadian Pacific Railway on the east, to the Lake of the Woods on the west; along the line of the Canadian Northern Railway north of Sudbury; along the Temiskaming and Northern Ontario Railway and its branches, from Haileybury north to the Transcontinental Railway; along the latter railway between the Abitibi River on the east and the town of Hearst on the west; along the Soo branch of the Canadian Pacific Railway from Echo Bay to Blind River; and south along the Grand Trunk Railway from Callander to near Powassan; in the valley of the Rainy River; and also in the mining districts around Porcupine, Kirkland Lake, Larder Lake and the Montreal River.

Labour was more plentiful than in previous years, and there was no difficulty in securing all the men required from among the settlers and residents in the districts. Little or no foreign labour was employed, except in the construction of ditches and taking out rock cuts. During the months of June and July, from 4,500 to 5,000 men were engaged on the work. The work was rushed during the early part of the season, owing to the very favourable weather, and in order to allow the roads to dry out before the rainy season began. The work, however, continued during the entire season. At present there are about 225 men engaged in the construction of roads and bridges where it is found at all profitable to carry on work.

During the season up to the 31st October, the sum of \$802,578.19 was expended on roads and on experimental farm plots in different places along the Transcontinental Railway. 708 miles of road was under construction, of which 255 miles is new road cut out of the forest. 296 miles of road was graded; 108 miles was surfaced with gravel or crushed rock; 214 miles was partly graded or improved by cutting down hills, ditching, and in other ways improving the grades; 40 bridges were constructed, the longest at Matheson across the Black River, having a length of 650 feet, and a steel bridge at Kakabeka Falls, west of Fort William, 300 feet.

In addition to the construction of roads and bridges, three experimental farm plots were started along the Transcontinental Railway; one near the town of Cochrane, one 50 miles west at the Groundhog River, and one at the town

of Hearst, 130 miles west of Cochrane. The land on which the experiments were made was chopped and cleared in the early part of May, and planted at different intervals between the 15th May and the 1st July. In the growth of grain, roots and vegetables, good results were met with, as in nearly every instance they matured. Spring wheat, oats, barley, rye and peas were not damaged by the summer frosts and were of good quality, and compared favourably with similar crops in Older Ontario. Potatoes, cabbage, onions, carrots, radishes, etc., did exceptionally well and produced large yields, maturing early in the season. Beans, corn, tomatoes and a few other vegetables were more or less injured by the summer frosts, but not more so than in parts of Old Ontario. Where the land was well cultivated and drained and fairly large clearings made, the settlers throughout the district did not suffer materially from summer frosts.

Judging from the crops we produced with a reasonable amount of cultivation, I am confident that there will be no great difficulty in growing almost all classes of grain and vegetables in Northern Ontario. Timothy, clover and alfalfa grow in great abundance almost everywhere along the line of railway both on the low and high lands, and did not suffer from the summer frosts; and good pasture was abundant up to the end of the first week in October.

During the months of July and August the weather was extremely dry and hot, but notwithstanding this fact, the growth of the crops was not much retarded where the land had been properly cultivated.

When inspecting the different districts along the roads which have been constructed during the last three years, I find that good progress is being made by the settlers; along these roads, nearly all the vacant land suitable for settlement is being taken up and improved. In the valley of the Rainy River exceptional progress has taken place; the settlers are now able to reach markets along the Canadian Northern Railway, which three years ago were inaccessible. Heretofore where no roads were constructed, the settler was merely marking time; since the construction of roads, he has taken courage, and is now clearing up large areas of land, and in other ways improving his social condition. This will apply to almost all the sections where good roads have been constructed. It has encouraged the settlers to build schools, and has made it possible for the children to attend them. This in itself has done much to stimulate settlement, as in the past the want of schools and their inaccessibility for lack of roads, I have found to be one of the great obstacles in the way of settlement.

Along the Sault Ste. Marie and Sudbury trunk road; along the trunk roads extending in different directions out of Port Arthur and Fort William; between North Bay and Mattawa; from Sudbury into the agricultural sections to the north and east, the roads are now in such a condition that the settler can reach a market at all times of the year; it has given to his products an increased value, and has removed much of the monotony heretofore found in the life in the new districts. On most of the main trunk roads it is now possible to travel over them in an automobile, and what is probably of greater importance, it has made it possible for a farmer at a distance of from 15 to 20 miles to market his produce, and return the same day.

Splendid progress has been made in the country north of Haileybury along the line of the Temiskaming and Northern Ontario Railway and its branches, in the way of clearing up land.

Along the Transcontinental Railway settlement has not taken place as rapidly as might have been expected, but a good deal of this is owing to the

fact that up to the present time the regular trains have not been run, as the road has been in the hands of the contractors.

Last season was extremely favourable for the clearing up of land, owing to the dry weather, and the settlers in many instances have taken advantage of this, so that during the past season more land has been made ready for cultivation than during the two previous seasons. This applies to the country along the line of the Temiskaming and Northern Ontario Railway as well as along the Transcontinental Railway. If next spring is at all favourable, a much larger area of land will be put under cultivation, provided that the settlers are in a position to procure the necessary seed grain.

During the three years in which operations have been carried on under this Branch, 1,704 miles of road has been under construction, of which 744 miles is entirely new road cut out of the forest; 960 is old road improved; 914 miles was graded and ditched, 180 of which was also surfaced with gravel or crushed rock, and the balance improved by cutting down grades, renewing culverts and bridges, and ditched.

In the descriptions of the several roads hereinafter given, information will be found respecting the operations in the various districts.

Accompanying this report is a statement of expenditure in the different districts, and the number of miles of road constructed or under construction.

I have the honour to be, Sir,

Your obedient servant,

J. F. WHITSON,
Commissioner.

STATEMENT OF EXPENDITURE UNDER 2 GEO. V., CHAP. 2, ON ROAD CONSTRUCTION, ETC., AND MILEAGE CONSTRUCTED.

(From 23rd May, 1912, to 31st October, 1914.)

	1912 miles.	1913 miles.	1914 miles.	Total miles.
New and old roads graded.....	39	500	405	944
New and old roads partly graded.....		40	214	254
New bush roads cut out ready for grading, and old roads improved	194	224	89	507
Total mileage under construction.....	233	764	708	1,705

No. of bridges constructed in 1914, 40.

District.	Expenditure to 31st October, 1913.	Expenditure year ending 31st October, 1914.
	\$ c.	\$ c.
District of Nipissing, North Bay to Mattawa and east to Pembroke, and south of Callander to Powassan, and west from North Bay to Sturgeon Falls	83,313 38	79,086 92
District of Temiskaming, Haileybury, Englehart, Matheson, Charlton, Swastika, Elk Lake, Larder Lake	185,612 61	144,766 69
District of Temiskaming, Cochrane, Porcupine, Iroquois Falls and Transcontinental Railway from Quebec boundary west 125 miles to Groundhog....	413,228 30	127,997 62
District of Sudbury, vicinity of the Town of Sudbury and Mining District surrounding	118,568 32	49,526 42
District of Algoma, vicinity of Hearst along Transcontinental and Algoma Central Railways	22,396 32	34,236 29
District of Algoma, on Sudbury and Sault Ste. Marie Trunk Road	76,275 40	80,720 07
District of Thunder Bay, tributary to Port Arthur and Fort William	123,247 31	140,296 30
District of Kenora, vicinity of Kenora and Keewatin.	95,533 58	27,263 85
District of Rainy River, in Rainy River Valley.....	135,031 31	94,991 78
Experimental Farm Plots		9,035 11
General Administration Expenses	21,048 55	14,657 14
	1,274,255 08	802,578 19

ARTHUR E. D. BRUCE,
Secretary and Accountant.

SUMMARY OF EXPENDITURE FOR THE THREE YEARS ENDING 31ST OCTOBER, 1914.

Description.	Year ending 31st Oct., 1912.	Year ending 31st Oct., 1913.	Year ending 31st Oct., 1914.	Total expendi- ture under each section.
Sec. 1 (a) Works and Improve- ments (Sewer at Hearst).....			\$2,100 00	\$2,100 00
Sec. 1 (b) Roads.....	\$193,082 80	\$1,081,172 28	791,443 08	2,065,698 16
Sec. 1 (d) Farms.....			9,035 11	9,035 11
Total expenditure under all sections.....	\$193,082 80	\$1,081,172 28	\$802,578 19	\$2,076,833 27

ARTHUR E. D. BRUCE,
Secretary and Accountant.

ROADS IN THE DISTRICT OF KENORA, IN THE VICINITY OF THE TOWNS OF KENORA AND KEEWATIN.

Number of miles of road graded (of which 9 miles were surfaced)..... 15

Operations on the Kenora and Keewatin roads began early in May.

The approaches to the Keewatin Station were repaired by cutting down and widening the rocky approach. A car load of cinders were spread over the approaches and a new ditch was opened up on the north side of the road.

The old wooden bridge from the Canadian Pacific Railway across the channel to the Village of Keewatin was improved by renewing all the old plank in the deck and repairing the railing.

The two steel bridges across the east and west branches of the Winnipeg River were also repaired. They had not been painted since they were constructed and both had to be scraped and repainted. The bridge over the east branch was given two coats of paint, and a portion of the bridge over the west branch also received two coats. A new deck was placed on the bridge across the east branch, also a new railing and wheel guard. The best tamarac plank, 3 in. x 10 in. and 3 in. x 12 in. all seasoned and surfaced on one side, was used. The old joists were replaced by new ones and a new railing was constructed and painted. All the rods were examined and the bolts tightened. These bridges are now in a condition to last for many years. The bridge over the west branch is 242 feet over all, 21 feet wide and is composed of one single span set on four steel tubes filled with concrete and set on cement foundations. There are two approaches, the one on the west end 185 feet long and on the east 150 feet. The bridge over the east branch is composed of three separate spans, the east one 124 feet long, the centre one 158 feet and the west one 140 feet long. The width is 18 feet 6 inches.

After completing these bridges, operations were commenced on the road constructed last season commencing about one-half a mile east of the Village of Keewatin and running north-west across Darlington Bay of the Lake of the Woods through the Township of Pellatt and in a westerly direction to Pelican Pouch Lake. This road was regraded and surfaced with gravel in places, and continued to a point 18 miles from Kenora. It is now in splendid condition, all the heavy grades being cut down and diversions made around hills which were heretofore impassable for heavy traffic. The distance can now be travelled over from Kenora with an automobile in one hour. This road now opens up all the good agricultural land north-west of Keewatin and Kenora.

ROADS IN RAINY RIVER VALLEY, DISTRICT OF RAINY RIVER.

New roads cut and graded	23.75 miles
New roads cut and partly graded	6.25 miles
Old roads graded (including 29.5 miles surfaced with gravel)	62.10 miles
Old roads partially graded or improved	1.50 miles
Number of bridges constructed	4

During this season work was carried on over 94 miles of road, the greater portion of which was completed. The grading of the trunk road between Fort Frances and Rainy River was finished and there are now 40 miles of gravelled road between these two places. There still remains about 22 miles of this road

to be gravelled, which, when finished, will be of great benefit to the district. In addition to the grading work, the main road was kept dragged where the traffic was heavy. Besides the work on the trunk road, a number of roads were built running north and south from the trunk road, which were badly required. This work may be described as follows:

Township of Mather:

Between Lots 6 and 7, Concessions 4, 5 and 6, three miles. This was a new road and was cleared and graded and culverts put in.

Between Concessions 3 and 4, Lots 5 to 8, two miles. New road cleared and graded and culverts put in.



New road under construction in the Rainy River Valley.

Between Concessions 5 and 6, Lots 6 and 7, $\frac{1}{2}$ mile. New road cleared and graded. This road was put in to connect the old road with our new road between Lots 6 and 7 and to give a road to the school house.

East of Concession 1 and 2, Lot 1, one mile. This was old road which was graded up with the traction engine.

In the Township of Mather there is some very fine clay land. The high land was all burnt over a few years ago, and the land is easily cleared. The land along the road is well settled and the road will be of great benefit to the township.

Township of Crozier:

North boundary of Sections 13, 14 and 15, three miles. This is on the trunk road and was dressed up with the grader and gravelled.

East boundary of Section 21, one mile. Also part of the trunk road. This road was gravelled.

North boundary of Section 21, one mile. Also part of trunk road. This road was gravelled.

East boundary of Sections 32 and 29, two miles. This road was cleared and graded. It leads direct to the station at Crozier and greatly benefits the settlers north, as formerly they had to go several miles around to drive to the station. This road was continued two miles north into the Township of Miscampbell and is now the leading road for settlers to the north of Crozier. About a mile of this road was gravelled by the Municipality of Crozier after the grading was completed.

Road north of Sections 10 and 11, $2\frac{1}{4}$ miles. This road was cleared and graded. There is a school house at the north-west corner of Section 11, and before the grading of this road it was very difficult for the children to get to the school. This road passes through good farming land all of which is settled on.

Township of Kingsford.

Road between Lots 8 and 9, Concessions 1 and 2, two miles. This road was cleared and graded.

Road between Concessions 2 and 3, Lots 7 to 10, two miles. This road was cleared and graded.

This four miles of road will assist greatly in bringing this township under cultivation. The land along these roads is all settled on and considerable improvements had been made although previously the settlers did not have a road to town.

Township of Dobie:

Road along north boundary of the Township of Dobie across Lots 1, 5, 6, 7, 8, 9, 10, 11 and 12, $4\frac{3}{4}$ miles. This road was graded by the steam grader.

Road east of Lot 1, Concessions 1 to 6, three miles. This road was graded by the steam grader. This is one of the leading roads north in the district and should be gravelled next season.

Township of Tait:

Road along east boundary of Sections 1, 12 and 13, $11\frac{1}{2}$ miles. This road was graded by the steam grader and is a continuation of the above road in the Township of Dobie.

Township of Carpenter:

Road along east boundary of Lot 11 across Concessions 1, 2 and 3 and north boundary of Lots 10 and 9, Concession 4, two miles. This road passes through a good farming country and was graded by the steam grader.

Road along the Carpenter and Burriss town line, Concessions 4, 5 and 6, three miles. This road was cut out and graded and gives an outlet to settlers who previously did not have a road. This road passes through good agricultural land and should be continued north and south.

Township of Shenston:

Road along the east boundary of Sections 1, 12, 13, 24, 25 and 36, six miles. This road was graded with the steam grader. This is the leading road north from the Village of Barwick, and runs through a well settled district and there still remains considerable good land to be opened up to the north. This road extends 13 miles north of Barwick and as the traffic is heavy it should be gravelled.

Township of McIrvine:

Road across lots 44 to 48 and west of Lot 48, $\frac{3}{4}$ mile. This is part of the trunk road. This road was gravelled.

Township of Barwick:

Road commencing on east boundary of River Lot 1, thence westerly along trunk road $2\frac{1}{2}$ miles. This road was gravelled.

River Lot 1, trunk road, built pile bridge span 110 feet.

Township of Rosebery:

Trunk road along the south and west boundary of section 2, one mile. This road was gravelled.

Township of Dance:

Concessions 2, 3 and 4 between Lots 8 and 9, $1\frac{3}{4}$ miles. This road was cleared and grubbed.

Road across Lots 9 and 10 between Concessions 3 and 4, one mile. This road was cleared and grubbed.

Road between Lots 8 and 9, Concession two, $\frac{1}{2}$ mile. This road was graded and ditched.

Previous to last year there had not been any road work done in the Township of Dance, excepting about $\frac{1}{2}$ mile in Concession 1. There are now $5\frac{1}{2}$ miles of road cut out and grubbed, 2 miles of which have been graded. The road cut out should be graded up next season. The south half of this township is good land and well settled and only requires roads to make it a first class farming country.

Township of Atwood.

Road across River Lots 1 to 24, three miles. This is part of the trunk road. It was graded and ditched and 2 miles of it gravelled. Road between River Lots 23 and 24, one mile. This road was graded.

Wild Lands Reserve.

Road commencing at the north-east corner of Lot 9 in the Township of Curran, thence north-easterly a distance of 4 miles. This road requires to be extended back a distance of 4 miles to give an outlet to the settlers in the Township of Spohn. The first 4 miles have been cleared and graded.

Township of Blue:

Road commencing at the north-east corner of Lot 34, thence east $1\frac{1}{2}$ miles on north boundary of sections 35 and 36. This road was cleared, graded and ditched.

Township of Pratt:

Road across Concession 1, Lots 5 and 6, $1\frac{1}{2}$ miles. This road is part of the Sleeman Grassy River road and was graded and gravelled.

Township of Dilke:

Road along east boundary of Section 24, $\frac{1}{2}$ mile. This road was graded and ditched and 400 feet of tap drain dug.

Road along the south boundary of section 25, one mile. This road was ditched on each side and 914 feet of tap drain dug.

Road along the west boundary of Section 25, $\frac{1}{4}$ mile. This road was graded.

Road across Section 26, one mile. This road was graded and gravelled.

Road north of Sections 35 and 36, two miles. This road was graded, 3 culverts put in and 6,458 feet of ditching done.

Road across Sections 27 and 28, two miles. Old road was re-graded and gravelled.

Road between River Lots 24 and 25, $\frac{1}{4}$ mile. This road was gravelled.

Township of Morley:

Road along north boundary of Sections 20 and 21, $1\frac{1}{2}$ miles. This road was double ditched and crosslay put down.

Road commencing at the north-east corner of Section 10, thence easterly 2 miles. This road was gravelled.

Township of Pattullo:

Road along east boundary of Sections 4 to 33, six miles. This was an old road that had been poorly built and was impassable. The 6 miles of road were graded, 2 bridges of 40 and 30 feet span put in, and ditches and tap drains put in to carry the water away. The first 3 miles of this road were gravelled.

Road east of Sections 24 and 25, $1\frac{1}{2}$ miles. This road was cleared and grubbed. This road should be graded next season and continued back to the north boundary of the township. The settlers at present there have to pack their supplies on their backs and there is a good farming district to be opened up.

Township of Worthington:

Road across River Lots 1 to 9, one mile. This road was ditched and graded.

Road across River Lots 25 to 32, one mile. This road was graded.

Road across River Lots 41 to 48, one mile. This road was re-ditched and graded.

Township of Lash:

Road along the north boundary of Sections 25, 26, 27 and 28, four miles. This is part of the trunk road and was gravelled.

East boundary River Lot 41, built pile bridge, span 65 feet, on trunk road.

Township of Devlin:

Trunk road along the east boundary of Section 29, one mile. This road was gravelled.

Trunk road east boundary of Section 22 and north boundary of Sections 23 and 24, 1½ miles. This road was gravelled.

Township of Burriss:

Road across Concessions 1, 2, 3 and 4, between Lots 4 and 5, four miles. This road was graded and ditched and two miles gravelled. This is the leading road north of LaVallee, and previous to the work of this branch, part of the road was impassable in the summer. It is now one of the best roads in the district. This road should be continued north and the remainder gravelled.

Township of Miscampbell:

Road between Lots 8 and 9, Concessions 1 and 2, two miles. This road was graded and culverts put in. This is the main road in the township and was badly in need of grading.

Township of Nelles:

Road between Sections 14 and 15, ¾ mile. This road was grubbed and ditched on one side.

Road between Sections 26 and 27, and 34 and 35, two miles. One mile and 500 feet of this road was double ditched and one mile cleared and grubbed. This road passes across a bad swamp and muskeg, but there is a lot of good land to the north which it will open up if continued.

Also five miles of tap drain were dug and 74 culverts put in.

FORT WILLIAM AND PORT ARTHUR DISTRICT.

Number of miles new road cut out	60.45
Number of miles graded	32.5
Number of miles resurfaced with gravel	31.25
Number of miles partly graded or improved	76.20
Number of miles under construction	139.95
Number of bridges constructed	9

Pigeon River Road:

Work was begun on this road at the westerly limit of the City of Fort William, where re-ditching, re-grading and surfacing was done for 14 miles. On this stretch the first 3¾ miles were gravelled, two hills having first been cut down and the road grades improved by deepening fills at low lying points. The next 2½ miles (being in an area of poor drainage having little fall for the escape of water) was surfaced with crushed rock. This rock was got at the foot of McKay Mountain, was crushed by a Blake crusher and distributed to a depth of 8 inches along the



Kakabeka Falls on the Kaministiquia River, twenty miles west from Port Arthur.

road. Two low lying spots (in all about $\frac{1}{2}$ mile) were filled with boulder stone and these covered with gravel. The piers and stringers of a 24 foot bridge were renewed and three hills cut down on the remaining part of the above mentioned stretch. This road was then further extended for 11 miles; was cleared, grubbed, graded and ditched, and corrugated iron culverts set in place and three wooden bridges, each 40 feet in length, erected. The road at this point is at the settlement of Cloud Bay. A further stretch, 6 miles in length, was cleared and grubbed; this ends at the Pine River. The remainder of the road was surveyed and the centre line was cut out. The whole length of this road was found to be 37 miles, of which 12 miles remain to be graded. There is a road, with fair grades but narrow roadway, along the Pigeon River; 4 miles of which can be made use of in the extension of this road, leaving 8 miles to be cut out to complete the road to the Pigeon River or International Boundary.



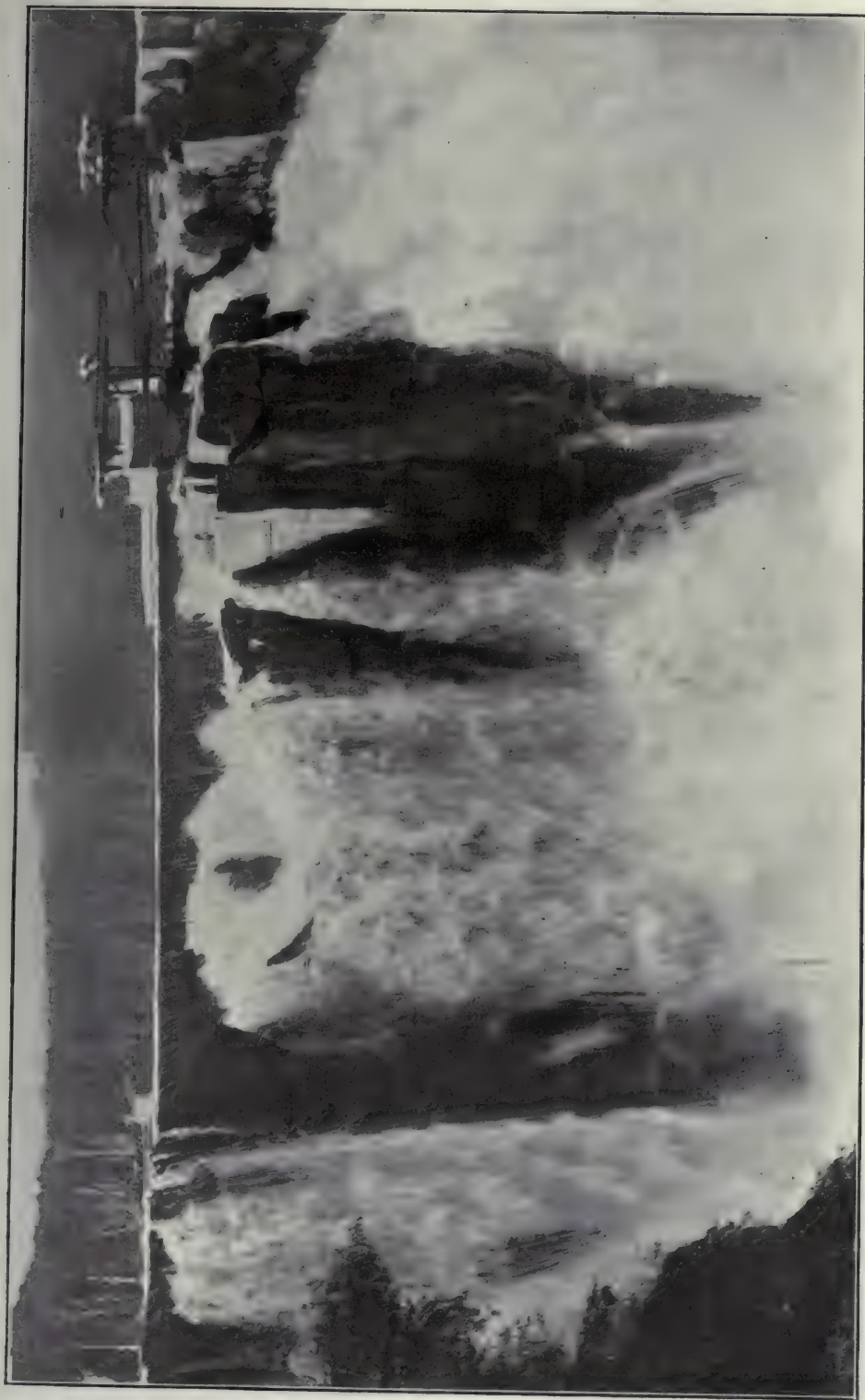
Constructing a steel bridge across the Kaministiquia River at Kakabeka Falls; 30,000 h.p. developed at this point.

Scoble Road:

Hill cutting, re-grading and ditching was done on the first $4\frac{1}{2}$ miles of this road along the town lines of the Townships of Blake and Scoble, and south-westerly in the Township of Scoble, together with about $\frac{1}{2}$ mile of grading on the line between Lots 6 and 7 in the Township of Pearson, and a further distance of about a mile, on this line, was cleared and grubbed.

Arthur Street Road:

The first 4 miles of this road was gravelled; the following mile was not improved (being a good sandy and dry roadway), the next mile and a half was gravelled, a bridge 20 feet long and two cedar culverts were set in place, and a



Pigeon Falls on Pigeon River on the International Boundary, $1\frac{1}{2}$ miles from Lake Superior. A splendid water power; available head, 105 feet.

ditch and offtake, about $\frac{1}{2}$ mile in length, was made. Then 3 miles of this road was re-graded, i.e., as far as the crossing of the Canadian Northern Railway. Five corrugated iron culverts were set in this stretch.

At a point about a mile west of the Canadian Northern Railway, where the road passes through a deep cut of shifting sand, the roadway was covered with clay to the depth of 18 inches for about 600 ft.

A 42 inch corrugated iron culvert was set in place and the fill, which had been of sand but had washed away, was replaced by a battery of logs and clay fill; this was at a point about 2 miles easterly from Stanley.

For about $\frac{1}{2}$ a mile north easterly from Stanley the roadway was filled with boulder stone to a depth of one foot and the whole was covered with gravel.

Re-grading was done from Stanley for $2\frac{1}{2}$ miles; a 36 inch corrugated iron culvert and 4 cedar culverts were set in place and the road was gravelled for 2 miles.

Clearing, grubbing and grading was continued for $2\frac{1}{2}$ miles further to the Silver Mountain Road. Low spots were stone filled and covered with gravel, about $\frac{1}{2}$ mile in all.

Clearing and grubbing was done from the Silver Mountain Road towards Hymers, about one mile in length, this being a diversion from the old road.

Gillies Road:

This is a diversion or cut off the present road. Clearing and grubbing was done for $\frac{3}{4}$ of a mile on this proposed road. The diversion runs south from Hymers and is intended to overcome a steep grade and to reduce distance.

Hardstone Road:

From Hardstone Station, Port Arthur, Duluth, and Western Railway, to the Silver Mountain Road (or Arthur Street Road) near Stanley. Clearing and grubbing was done for $2\frac{1}{4}$ miles on this road. This road is the outlet for the Whitefish Valley settlements.

Oliver Road and Extensions. ($20\frac{1}{2}$ miles; of this $3\frac{1}{2}$ is new work.)

These roads were ditched, re-graded (including eight hills cut down to improve grades) and surfaced with gravel, shale or best material available (about 5 miles of gravel or shale). Four corrugated iron culverts and 5 cedar culverts were set in place. A steel bridge 300 feet overall, on concrete piers and abutments, was erected at the crossing of the Kaministiquia River, above the crest of Kakabeka Falls. This bridge consists of two spans of 90 feet each and has a concrete floor. The approach to the west of these spans consists of 4 spans of about 30 feet each. They also are of steel and have a wooden floor.

The new work on these roads consisted of $3\frac{1}{2}$ miles of road building, and 4 cedar culverts placed.

John Street Road:

This road was re-graded for $7\frac{1}{2}$ miles from the westerly limits of the City of Port Arthur. Three miles of this was surfaced with gravel.

Dawson Road:

This road was re-graded for 10 miles from the westerly limit of the City of Port Arthur, was thoroughly ditched and all culverts renewed, one 15 inch iron culvert was set in place and the piers and stringers of a 25 ft. bridge were renewed.

North East Branch Road:

North-easterly from the City of Port Arthur in the Township of McGregor. This road was graded for 6 miles and a further distance of $4\frac{1}{2}$ miles was cleared and grubbed.

Gorham Town Line Road:

Road between the Townships of Gorham and McGregor. This road was graded for $\frac{1}{2}$ mile and a further distance of $4\frac{1}{2}$ miles was cleared and grubbed. A bridge 70 ft. overall was raised 10 ft. and the stringers were renewed.

Gorham Road:

Beginning at the north-west angle of the limit of the City of Port Arthur; thence north from the Dawson Road. This road was graded for 5 miles and a further distance of $4\frac{1}{2}$ miles was cut out and grubbed.

Dog Lake Road:

Beginning at the Dawson Road at the intersection of the "6 mile creek" thence north. This road and its feeder was graded for 5 miles; the whole was gravelled and a bridge (50 ft. long) was renewed.

8 Mile Road:

Beginning at the Dawson Road and following the line between Lots 28 and 29. This road was graded for $\frac{1}{2}$ a mile and a further distance of 3 2-5 miles was cut out and grubbed.

Mud Lake Road:

Beginning at the Dawson Road and following the line between Lots 10 and 11, Ware. This road was graded for about one mile and a further distance of $4\frac{1}{2}$ miles was cut out and grubbed.

Concessions 1 and 2, Ware:

This road was cut out and grubbed for a distance of 3 miles.

Concessions 2 and 3, Ware:

This road was cut out and grubbed for a distance of $4\frac{1}{2}$ miles.

Kaministiquia Road:

Beginning at the Dawson Road and following the easterly bank of the river. This road was cut out and grubbed for 4 miles.

Total clearing in the Townships of Ware, Gorham and McGregor, 32.63 miles.

The McLaughlin or 3rd Line:

A little over a half a mile of this road, near the Dorion station, where the same ran through a bad swamp area, was deeply ditched and gravelled.

Road North Westerly from Ouimette Station:

This road was ditched, graded, and the hills on the Coldwater River cut down, and for two miles the road was well gravelled.

Road Easterly from Ouimette Station to Settlement at Dorion:

Improved for 3½ miles. This road was ditched, graded and 9 cedar culverts were put in. In all low lying spots the roadway was raised and then well covered with gravel, about one mile of such gravelling was done on this road.

THE SAULT STE. MARIE AND SUDBURY TRUNK ROAD; AND ST. JOSEPH ISLAND ROAD VIA CAMPEMENT D'OURS ISLAND.

New roads cut and graded	10.25 miles
Old roads graded (including 10.75 miles surfaced).....	14.25 miles

Sault Ste. Marie and Sudbury Trunk Road:

One mile of this road was surfaced immediately east of the Root River, between miles 5½ and 6½ east of Sault Ste. Marie. The material used was trap rock with a top course of limestone.

Two miles of trap in the single course were laid on heavy sand at Little St. Joseph Island, being on the 13th and 14th miles east of the Sault. This camp also made miscellaneous repairs on the section between the Sault and Echo Bay. It completed the embankments at Garden River Bridge built by the Public Works Department and erected railing on it and surfaced it with 200 yards of trap with a top course of limestone.

This camp was moved to Day Mills about the middle of July and commenced construction of section between that point and Iron Bridge. When the work

closed down for the season one and one-half miles had been cleared and brushed and graded and a quarter of a mile of gravel put down. Many of the old log culverts were removed and the new corrugated metal ones were not installed, this for the reason that the shipment of culverts did not arrive until the work had stopped. These culverts are stored at Dayton Station.

Culverts of corrugated metal were placed between Desbarats and McLennan and equipped with concrete ends. One-half mile of this section which was in bad condition was regraded and gravelled. The remainder of the section is in very good state of repair and it was decided not to do anything with it for the present. Three miles of road immediately west of McLennan's, being mile 24, 25 and 26 east of the Sault, were rebuilt, graded and gravelled. Several bad grades were cut down. Metal culverts were installed throughout, all with concrete ends.

A 40 ft. steel bridge on piled concrete abutments and with concrete floor was erected across the Shewfelt Creek. The embankments were equalized making an easy approach at each end.

At Bruce Mines a reinforced concrete culvert 6 x 8 was built two miles east of Bruce Mines. Three-quarters of a mile of road was graded and one-third of this surfaced with trap rock, 10 ft. wide and with gravel shoulders. This work is not yet finished. Culverts are on the ground ready for installation.

In this section a new route for the Trunk Road was arranged through the Town by agreement with the Council. The original survey ran north of the Town and involved construction of one and one-half miles of new road over boulder imbedded ground. The revised location goes through the centre of the town and requires construction of only half a mile of new road and this of an easy nature.

A road was cleared, built and graded across Campement d'Ours Island, intended, in conjunction with the ferry to be established, to furnish the settlers on St. Joseph Island an access to the mainland at Kensington Point and then with the Trunk Road at Desbarats, by means of road one and a half miles in length, on which work was done during the present season and which is subsequently referred to. This road, one and three-quarter miles in length, ran for its entire length through very heavy bush and over ground covered in part with boulders. On its completion at the end of June, operations were commenced on the building of a road on a new location between Thessalon and Nesterville. The new location is three and a half miles in length as against five miles for the old road and will be when finished, of a much superior nature, its bed being composed of sand and gravel as against clay for the old road. Two and a half miles of this section was cleared and grubbed, the balance being already open. One and one half miles have been graded and one mile gravelled; the rest being left uncompleted. In addition two miles of road immediately west of Nesterville, built during the season of 1913, was gravelled.

Four and a half miles of road was built and graded along the Mississaga River from a point eight (8) miles west of Blind River to a point twelve and a half (12½) miles west. On this section metal culverts were installed, all with concrete ends. The balance of the culverts to complete the road to Iron Bridge are on the ground. This camp also placed concrete ends on twelve (12) culverts installed during 1913, on the portion of road to the east. The road leading from Desbarats to Kensington Point, 11½ miles in length, was improved, by clearing along the sides, regrading and gravelling. Half a mile of gravel was laid and three-eighths of a mile through swamp was raised by filling in. Numerous boulders were removed from the southerly half mile of the road.

During the winter, early in 1914, three (3) miles south of Echo Bay were gravelled by contract. Also an outlet ditch one mile east of the Sault and one-half mile in length, was constructed to the River St. Mary, under contract. This was done to carry off to sufficient outlet, water from the Trunk Road which had been flowing across and damaging an adjacent farm.

The total amount of road covered with this season's work was $24\frac{1}{2}$ miles of which three miles were surfaced with stone and $7\frac{1}{4}$ gravelled. On all the road completed permanent metal culverts were installed with concrete ends. In addition one forty (40) foot steel bridge and a 6 x 8 reinforced concrete culvert were built. Culverts are on the ground to finish the whole division between Sault Ste. Marie and Blind River, with the exception of that part between Thessalon and Day Mills.



On the trunk road between Sudbury and the Murray Mine.

ROADS IN THE SUDBURY DISTRICT.

In the Blezard Valley and north along the Canadian Northern Railway to Capreol Junction, and north-east from the Garson Mine to Wahnapiatae Lake.

Number of miles graded (of which 6 miles were cut out).....	28 miles
Number of miles resurfaced with stone and gravel	6 miles
Number of bridges constructed	5

Work was begun along the Canadian Northern Railway at Capreol Junction 20 miles north of Sudbury early in May. A trunk road was cut out southerly along the railway to Hanmer Station, 5 miles, to the line between Concessions 2 and 3, Township of Capreol. The first 3 miles of this road passed through a country chiefly gravel and sand, and the next 2 miles through a fairly good level agricultural country. From Hanmer Station the road was continued west along the line between Concessions 2 and 3, one mile, to the Village of Hanmer on the town line between the townships of Capreol and Hanmer; thence west between Concessions 2 and 3, Township of Hanmer for 4 miles across lots 1 to 8 inclusive. The work consisted in cutting out and widening a partly constructed old road. The road was well ditched and graded and all old culverts renewed. The country is level, well settled and under cultivation; the soil a light sandy loam.

The old road between Lots 6 and 7, Hanmer, was widened, ditched and well graded across Concessions 1, 2, 3, 4, 5 and part of 6, to the Vermilion River, $5\frac{1}{2}$ miles.

A new truss bridge, 34 foot span, was constructed across Whitson Creek on Concession 6, Township of Blezard.

The trunk road graded and ditched last season from Sudbury north into the Blezard Valley was re-surfaced with crushed rock from the Stobie Mine road, where rock surfacing ended last season, north to the line between Concessions 5 and 6, Blezard, between Lots 6 and 7 for a distance of $6\frac{1}{2}$ miles. Waste rock from the mines and from a mountain on Lot 7, Concession 4, Blezard, was crushed and 800 cubic yards per mile was spread on the road to a width of 9 feet, and well rolled with a ten ton steam roller. Several culverts or small bridges were



Tyadala Bridge, near the Spanish River, on the Soo branch of the C.P.R.; 140 ft. long.

renewed by large corrugated iron culverts. There is now a first-class stone road leading north from the Town of Sudbury into the agricultural valley of the Blezard, and a good clay and gravel road as far as Capreol Junction on the Canadian Northern Railway over 20 miles from Sudbury, which distance can easily be covered by automobile in less than one hour.

The town line between Capreol and Hanmer Townships, across Concession 2, one mile, was stumped and graded.

A road between the Townships of Hanmer and Blezard across Lots 1 and 2, one mile, and between Lots 2 and 3 across Concession 6, Blezard, one mile, was cut out and graded, and a bridge, 40 foot span, constructed across Whitson Creek on road between Lots 2 and 3. These roads will enable the settlers to reach the Canadian Northern Railway station at Bertrands or Hanmer.

A road between Lots 10 and 11, Concession 6, Hanmer, one mile was graded; also a road between Lots 2 and 3, Concession 6, Township of Lumsden, one mile.

and the trunk road between Concessions 5 and 6, Township of Rayside, across Lots 1 and 2, one mile.

The old bridge, which had become unsafe for traffic, on Lot 9, between Concessions 5 and 6, Blezard, was replaced by a new pile bridge, 36 foot span, with truss.

From the Garson Mine to Wahnapiatae Lake, a distance of 10 miles, the old timber road was widened, straightened and graded to enable a small settlement on Massey Bay, Township of Maclellan, to reach a market at Sudbury. This road also makes it possible to reach the nickel range west of Wahnapiatae Lake from Sudbury.

The old wooden bridge across Whitson Creek on Lot 4, between Concessions 2 and 3, Township of Balfour, 1½ miles south-west of Chelmsford, on the trunk road west of Chelmsford, which was unsafe for traffic, was renewed by a pile bridge 66 feet long with a 36 foot truss.

A new pile bridge with steel stringers 140 feet in length was constructed across the Tyadala River on the Sudbury and Sault Ste. Marie trunk road close to the Spanish River in the Township of Nairn, 3½ miles east of Nairn Station on the Algoma Eastern Railway. The old bridge had partly fallen down and was unsafe for traffic.

ROADS IN THE VICINITY OF AND TRIBUTARY TO NORTH BAY

New roads cut out (of which 3½ miles were graded).....	26	miles
Old roads graded	9½	miles
Old roads partly graded or improved	25	miles
Old roads surfaced with gravel or stone.....	20	miles

NORTH BAY TO STURGEON FALLS TRUNK ROAD.

Operations on this road were commenced about the middle of June. The road extends from the western limit of the Town of North Bay westerly along the northern limit of the right-of-way of the Canadian Pacific Railway for a distance of about 1½ miles to the Duchesney Creek. From this point the road continues north-westerly crossing to the north side of the Canadian Northern Railway; thence along the north limit of the Canadian Northern Railway to a point about one-quarter of a mile from Beaucage Station. It then crosses the Canadian Northern Railway to the north limit of the Canadian Pacific Railway, and from this point it continues westerly adjacent to the north limit of the Canadian Pacific Railway until it reaches the west limit of the Indian Reserve. At this point it crosses to the south side of the Canadian Pacific Railway and follows the colonization road to the Town of Sturgeon Falls.

A careful exploration survey was made of the ground before the road was located. Several deviations around high rocks had to be made east of Beaucage. From Beaucage west to Sturgeon Falls the road passes through a very level country with scarcely a grade. Around the mountains good grades were found so that the road when completed will have few grades to interfere with heavy traffic. It passes through a country in places heavily timbered with birch, hemlock and other timbers. The finest timber, however, has been nearly all cut out. The road was cut to a width of 66 feet and in places it has been grubbed and is now ready for grading. In other places it has not been stumped.

The work has been continued since the close of the season and at the present time gravel is being drawn, and timber taken out for culverts and bridges. Abundance of good cedar for the construction of culverts is available along the road. Two car loads of corrugated iron culverts have been shipped on the road ready for use as soon as grading is resumed. The road has been well graded and good stone or concrete culverts constructed as far as Duchesney Creek. West of Duchesney Creek for about one mile the road has been well graded, although it will require to be surfaced with gravel in places where the soil is light and sandy.

Heretofore there has been no means of communication by road between North Bay and Sturgeon Falls, the distance being about 22 miles. When this road is completed the farmers in the vicinity of Sturgeon Falls and the small villages west, will be able to market their produce in North Bay. The road will also open up a large area of good agricultural land in the western part of the Reserve. The eastern part of the Reserve along the road is broken and rocky in places.

NORTH BAY AND MATTAWA TRUNK ROAD.

The trunk road between North Bay and Mattawa, the length of which is 50 miles, was constructed and graded during the season of 1913. As there was a great deal of traffic on this road it was badly cut up during the wet seasons, spring and fall, and it was found necessary to re-grade and surface with stone and gravel a large portion of this road.

A stone crusher was set up near Callander early in January, 1914, and was continued at work throughout the entire winter up to about the latter part of May. Crushed stone was hauled on to the road between Callander and North Bay for a distance of about 6½ miles. Six thousand cubic yards of crushed rock was spread on the road for a width of 12 feet between North Bay and Callander. It was well rolled with a ten ton roller.

Between Callander and Mattawa 13 miles of old road was re-surfaced with coarse gravel. Through the village of Bonfield, where the road was very narrow, it was widened by removing the large boulders from the side and well surfaced with gravel. The road between Callander and Mattawa is now in first-class condition. Most of the old culverts were replaced by cedar or corrugated iron ones. The ditches in many instances had to be deepened.

The old wooden bridge across the Amable du Ford River, in the Township of Calvin, was replaced by a substantial bridge, built on concrete piers and abutments, with steel girders; the length of this bridge is 130 feet.

The road is now in first-class condition and the distance, 50 miles, can be made with an automobile in about three hours.

CALLANDER TO POWASSAN ROAD.

From Callander south to Powassan, a distance of about 12 miles, there was an old road with bad grades, badly drained in places and impassable for heavy traffic. This road was widened out, ditched, graded and surfaced with gravel in places, for a distance of 9 miles. The road passes through a country in which there is considerable good agricultural land but broken in places by rocky ridges. The settlers have heretofore, had a good deal of difficulty in reaching a market for their produce, either at North Bay, Powassan or Callander. During the spring and fall of the year the road was always in a bad condition. It was necessary to cut down many of the hills in order to improve the grade. Good substantial cedar

or corrugated iron culverts were placed where required. The road was straightened out in many places.

The wooden bridge about three-quarters of a mile south of Callander, which had become unsafe for traffic, was replaced by a large stone culvert 8 feet wide, 6 feet high and 40 feet long.

CHISHOLM TOWNSHIP.

A branch road was constructed leading from the main trunk road into the Township of Chisholm; $3\frac{1}{2}$ miles was cut out and widened, 2 miles of which was graded. This road was constructed for the purpose of giving to the settlers in Chisholm a good out-let to a market at Callander or North Bay. Part of the road is through a broken section. The road, however, opens up one of the best agricultural sections in the District of Nipissing. There is still about $2\frac{1}{2}$ or 3 miles of this road to be completed.

PEMBROKE AND MATTAWA ROAD.

(From Pembroke to the Petawawa Military Camp.)

Number of miles of new road graded	2.0
Number of miles of old road graded	9.3

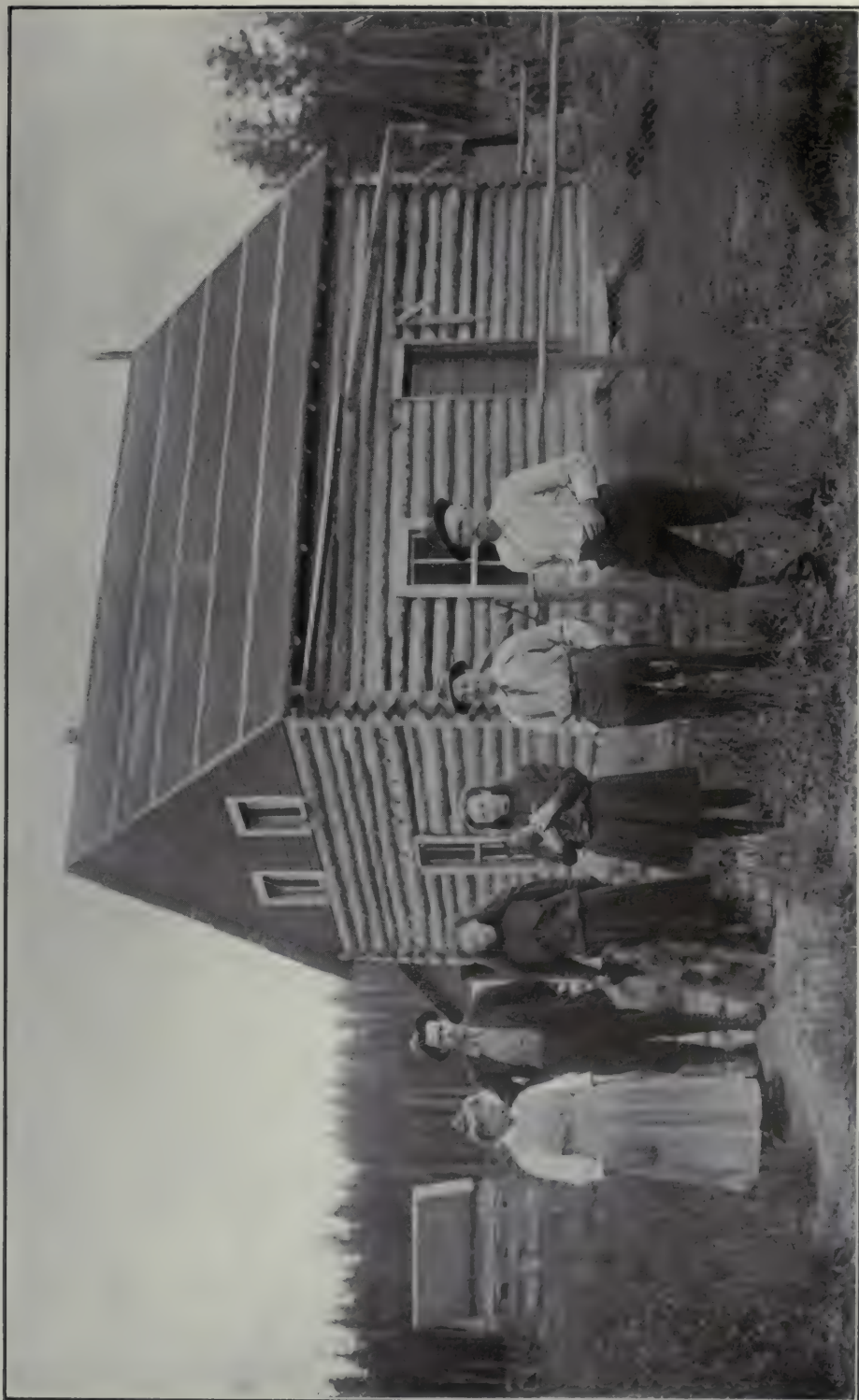
Operations were carried on commencing at the westerly limit of the Town of Pembroke, passing through the Townships of Pembroke, Stafford and Alice to the southern boundary of the Township of Petawawa, a distance of three miles, the remainder being through the Township of Petawawa to the Village of Petawawa on the main line of the Canadian Pacific Railway, a total distance of 8.3 miles.

For the first three miles we re-graded the old travelled road, it being necessary only to widen a few embankments and raise the grade line in a few places. The soil generally is light and sandy.

Through the Township of Petawawa we followed the old travelled road with the exception of two diversions, where by keeping adjacent to the north side of the Canadian Pacific Railway we avoided two level railway crossings in each case, and shortened the distance in all by about 200 feet. About two miles of this was through bush land, through which we cleared a right-of-way forty feet in width, removing stumps, etc., for a width of thirty feet. The first three miles is light sandy soil, making a very dusty road in summer. The remainder is fine gravel, not coarse enough for road metal but will afford a good foundation for a permanent road. The grading was performed by using scrapers and road grader, and when completed will be practically free from grades, as it runs through a fairly level plain, crossing only one short ravine.

The only road metal available will be crushed stone, and there is only one out-crop of rock along the road situated about one mile west of the Town of Pembroke.

On this road there is a considerable amount of traffic in summer months by automobiles, it being used by motorists and others going from Pembroke to the Petawawa Military Camps, and to the mouth of the Petawawa River, where a number of Pembroke citizens have summer cottages. The automobiles cut up the grading on the sandy portion of this road very badly, and it will be advisable to re-surface this road with either coarse gravel or crushed rock.



A Settler's House, Krugerdorf, Township of Catherine, T. & N. O. Railway.

HAILEYBURY AND SOUTH LORRAIN ROAD.

New road cut out 10 miles.
(Of which 7 miles was graded.)

Work was commenced on this road early in May, 1914, commencing at Argentite Ave. in North Cobalt on the line between Concessions 1 and 2, Township of Bucke, Lot 13, and continued in a south-easterly direction across the 1st Concession of the Township of Bucke, entering the Township of Lorrain on Lot 3, Concession 12, and continued in the same direction through the said township to a point in front of Paradise Bay on Lake Temiskaming, a distance of 10 miles.

The road was cut out, logged and graded for a distance of 7 miles; two bridges were constructed and several culverts built. The road in places was surfaced with gravel, and throughout its entire length was well ditched. Previous to starting operations, a survey was made from South Cobalt to the mining districts in South Lorrain. The road passes through a country which is broken in many places with rocky ridges; in the valleys however there is first-class farming land found in small areas.

ROADS IN THE VICINITY OF ENGLEHART AND CHARLTON.

Number of miles of new roads cut out, of which 3.5 were graded and 1 partly graded	9.5
Number of miles of old roads graded	5.5
Number of miles of old roads regraded or otherwise improved.....	45.0

Townships of Pacaud and Catharine:

Road along Pacaud-Catharine boundary across Concessions 1 and 2, two miles, partially graded; and one mile across Concession 3 cut and stumped.

Road on Chamberlain-Pacaud boundary, across Lots 3 and 4, one mile graded; and 1½ miles across Lots 5, 6 and 7 regraded and hills cut down.

Township of Chamberlain:

Road between Concessions 5 and 6, across Lots 3, 4, 5 and 6, two miles partly graded, and one mile of same cut and stumped.

Road between Lots 2 and 3, north from south boundary, widened and regraded four miles. The northerly two mile portion partially graded, and three large permanent fills made to replace bridges.

Road between Lots 9 and 10, across Concessions 1 and 2, graded two miles, and right of way widened from 30 feet to 66 feet.

Road between Concessions 1 and 2, across Lot 1, graded ½ mile.

Township of Marter.

Road between Concessions 3 and 4, across Lots 9 and 10, graded three-quarters mile.

Road on south boundary, across Lots 7, 8, 9 and 10 regraded two miles.



Crop of Oats in the Township of Marter.

Township of Evanturel.

Road between Concessions 5 and 6, across Lots 6, 7, 8 and 9, cut and stumped, two miles, and half-mile across Lot 6 graded; also half-mile across Lot 10 graded.

A bridge across Blanche River was partly constructed; the piles and the west-erly approach were completed.

Road between Lots 10 and 11, across Concession 6 and part of Concession 5, $1\frac{1}{2}$ miles, and $6\frac{1}{2}$ miles of trunk road between Englehart and Heaslip regraded, and 2 miles graded.

Road between Concessions 1 and 2, across Lots 2, 3 and 4, stumped and parti-ally graded, $1\frac{1}{2}$ miles.

Road between Lots 10 and 11, Concession 5, hills cut down and graded for southerly half-mile.

Road between Lots 11 and 12, Concession 5, stumped and graded one mile, and between Concessions 4 and 5, across Lot 12, stumped and graded $\frac{1}{2}$ mile.

Township of Armstrong.

Road between Lots 5 and 6, across Concessions 4, 5 and 6, regraded three miles.

Road between Concessions 3 and 4, across Lot 6, regraded half-mile.

Road between Concessions 5 and 6, across Lots 4 and 5, stumped one mile, half a mile of which was graded.

Road on north boundary, across Lots 2, 3 and 4, stumped $1\frac{1}{2}$ miles, and across Lots 7 and 8 cut and stumped one mile.

Township of Dack.

Eight miles on the Charlton-Englehart road widened, ditched, regraded and grades improved by cutting down hills; also culverts renewed.

Road between Lots 9 and 10, across Concession 6, widened and graded $1\frac{1}{2}$ miles; also between Concession 5 and 6, across Lot 9.

Road between Lots 2 and 3, across Concession 6, regraded one mile.

Road between Concessions 4 and 5, across Lots 11 and 12, regraded one mile, and one 35-foot bridge constructed.

Township of Savard.

Road on south boundary across Lots 1 to 6, three miles widened and graded, and one 30-foot bridge constructed on Lot 5.

Road between Lots 6 and 7, across Concessions 1 and 2, two miles graded, and one 30-foot bridge constructed.

Road between Concessions 2 and 3, one mile new road partially graded and right of way widened; also two miles between Lots 8 and 9, across Concessions 3 and 4.

Township of Robillard.

Road between Concessions 4 and 5, across Lots 1 to 10, five miles; $1\frac{1}{2}$ miles along Long Lake in Concession 5, and 1 mile of west boundary across Concession 6 widened and regraded, and cut down hills.

Township of Sharpe.

Road on east boundary, across Concessions 1 and 2, cut and stumped two miles.



Logging and Stumping Bee, Township of Evanturel.



Bridge across the Black River at Matheson, 650 feet long; T. & N. O. Ry.

ROADS IN THE DISTRICT OF TEMISKAMING IN THE VICINITY OF MATHESON AND LARDER LAKE.

New roads cut out but not graded	6.50 miles
New roads cut and graded	9.25 "
New roads partly graded	12.5 "
Old roads graded	26.5 "
Old roads improved	26.00 "
Number of bridges constructed	3

Log jams and driftwood were cleared out of the Wahtaybeg River from Lot 9, Concession 3, to Lot 11, Concession 1, Township of Carr, to allow the settlers to drive pulpwood and logs to the pulp mills at Iroquois Falls and local saw-mills along the river.

Road on line between Lots 2 and 3, Concessions 1 and 2, Twp. of Carr, two miles, cut and graded.

First Street, Town of Matheson, $\frac{1}{4}$ mile graded and one 36-inch corrugated culvert pipe placed.



Another view of Bridge at Matheson, T. & N. O. Ry.; 650 feet long.

Road on town line between Carr and Bowman, and Currie and Taylor; eight miles of road widened from 20 ft. to 30 ft. and culverts repaired.

On trunk road south from Matheson, along Temiskaming and Northern Ontario Railway, in the Twps. of Bowman, Hislop, and Playfair, grubbed two miles, graded six miles, and improved eight miles of old road.

Mining road from Larder Lake road to Huronia Mine, through the Twp. of Gauthier; six miles chopped, stumped and grubbed, two miles of which was graded.

Road between Concessions 3 and 4, Twp. of Carr, across Lots 1 to 4; two miles chopped, stumped and grubbed, and culverts put in from line between Lots 4 and 5 to town line, and $1\frac{1}{2}$ miles chopped, stumped and grubbed between Lots 4 and 5, from Concession 5 to Concession 6.

Road on town line between Stock and Bond; chopped and graded $2\frac{3}{4}$ miles across Lots 1, 2, 3, 4, 5 and part of 6.

Road between Concessions 2 and 3, across Lots 1 to 7, Twp. of Taylor, $3\frac{1}{2}$ miles graded.



Harvesting Fall Wheat at the Ontario Government Experimental Farm, Monteith, T. & N. O. Ry.; yield, 35 bushels per acre.

Road between Concessions 2 and 3, Twp. of Carr; $\frac{3}{4}$ miles graded, and on town line between Carr and Beatty, 2 miles graded from Concession 4 to Concession 6.

Road between Concessions 5 and 6, across Lots 2 to 7, Twp. of Taylor, three miles graded.

On road between Concessions 5 and 6, Twp. of Hislop; pile bridge, 25 foot span constructed.

Road between Currie and Bowman; three miles grubbed and graded across Concessions 1 to 3.

Road between Hislop and Bowman, $11\frac{1}{2}$ miles graded across Concession 1 and part of Concession 2, and one mile regraded across Concession 3.

The old road from Swastika to Foster Mine was regraded in places for a distance of four miles.

The Larder Lake road, from Dane Station on the Temiskaming and Northern Ontario Railway, was repaired and culverts and small bridges constructed.



On a visit to the Ontario Government Experimental Farm, Monteith, T. & N. O. Ry.
Oats yield 70 bushels per acre.



Constructing the Matheson Bridge, 650 feet long.

Road between Concessions 4 and 5, from Lot 2 to townline, Twp. of Taylor, ¾ mile graded; and 1 mile graded across Concession 4 on town line between Carr and Taylor.

Road between Concessions 4 and 5, Twp. of Taylor; one mile chopped, stumped and grubbed across Lots 11 and 12. Also on Concessions 4 and 5 in Stock, one mile chopped, stumped and grubbed across Lots 1 and 2. Also on road between Taylor and Stock, one mile chopped, stumped and grubbed across Concession 3.

Road between Concessions 1 and 2, Twp. of Walker, across Lots 4 to 10, 3½ miles improved with grader; also ½ mile between Lots 10 and 11, Concession 2; also one mile graded from line between Lots 10 and 11, across Lots 11 and 12, to the town of Monteith; also ½ mile chopped and graded between Lots 10 and 11 north to Concession 3; also chopped, stumped and grubbed 2½ miles between Concessions 2 and 3, Walker; two miles graded, ½ mile chopped and graded from Concessions 2 and 3, between Lots 10 and 11.

Road between Concessions 3 and 4, across Lots 1, 2, 3 and 4, Bowman; two miles chopped, stumped and grubbed.

Road between Concessions 5 and 6, Hislop, across part Lots 9 and 10, one mile graded, ½ mile chopped across Lot 8. Also 1 mile chopped across Concession 5, between Lots 10 and 11.

Road between Twps. of Taylor and Carr, ½ mile graded across N. half, Concession 2.

Road between Taylor and Walker; ½ mile chopped, stumped and grubbed.

Road between Concessions 5 and 6, Stock; chopped, stumped, and grubbed, one mile across Lots 6 and 7; also ¼ mile graded on Lot 3.

Cut down hill between Lots 4 and 5, Twp. of Bowman, south from Matheson, on Concession 5.

Road between Concessions 1 and 2, Twp. of Beatty; two miles chopped across Lots 9, 10, 11, and 12.

Road between Lots 4 and 5, Twp of Carr; cutting down hills, across Concessions 2 and 3.

A new pile bridge was constructed across the Black River at Matheson, 650 feet long, with two 60 foot spans and twenty 28 foot bents. Also a bridge across Russell Creek ½ mile north of Matheson, having a length of 300 feet built on piles, bents 28 feet long. The approaches to each bridge were graded down and a rock filled abutment placed at the south end of the Matheson bridge.

ROADS CONSTRUCTED ALONG THE LINE OF THE TRANSCONTIN-
ENTAL RAILWAY, EAST AND WEST OF THE TOWN OF COCH-
RANE, AND SOUTH ALONG THE TEMISKAMING AND
NORTHERN ONTARIO RAILWAY, TO MONTEITH
AND TIMMINS.

Number of miles of new road cut out (of which 50.67 miles were graded).....	56.57
Number of miles of old road reggraded	27.50
Number of miles of old road burned	40.00
Number of bridges built	12

Township of Bradburn:

Road between lots 12 and 13, across Concessions 7, 8, 9, 10, 11 and 12, a distance of 4.7 miles. This road was cut last season (1913) but not all burned off. The burning and logging has been completed this season (1914).



Farm in the Township of Marter.



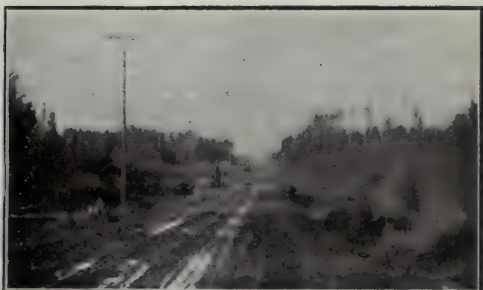
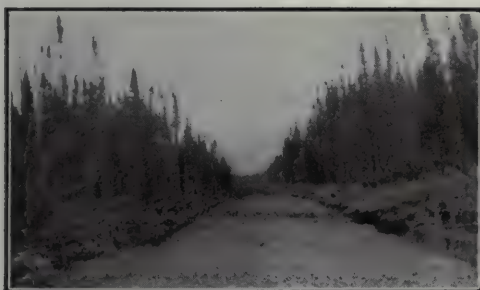
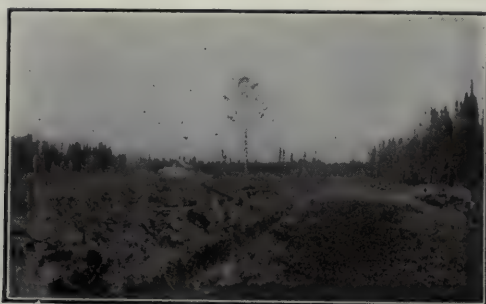
Rossing Pulpwood on T. & N. O. Railway, near Cochrane.

Road between Concessions 6 and 7, across Lots 1 to 22 to the Mattagamit River, 6.75 miles. This road was cut last season but not all burned off. Burning and logging was completed this season.

Township of Calder:

Road along the west boundary. This road was cut out last season but burning was not completed on $6\frac{1}{2}$ miles. Burning and logging completed this season.

Road between Lots 16 and 17, across Concessions 7, 8, 9 and 10, three miles. This road was cut and graded this season.



New Roads along the Transcontinental Railway west of Cochrane.

Road between Lots 12 and 13, across Concessions 3 and 4. This road was cut out in 1912 but not completed. This season the grubbing was completed on $1\frac{1}{2}$ miles.

Road between Concessions 6 and 7, across Lots 1 to 12. This road was cut out in 1912 but the grubbing was not all done. This season 1.3 miles of grubbing and two miles of grading was completed.

Road between Concessions 8 and 9, across Lots 13 to 18, 1.9 miles. This road was cut this season and Lots 15, 16, 17 and 18 well ditched and graded $1\frac{1}{4}$ miles.

Road along the north boundary across Lots 1 to 4, $1\frac{1}{4}$ miles. This road was cut, grubbed and burned.

Township of Colquhoun:

Road between Concessions 6 and 7, across Lots 18, 19, 20 and 21, $1\frac{1}{4}$ miles. This road was cut last season but the burning and grubbing was completed this season.

Township of Clute:

Road along the west boundary across Concessions 11 and 12, $1\frac{1}{2}$ miles. The road was cut, grubbed and burned and Concession 8 ditched for $\frac{3}{4}$ mile.

Road between Lots 18 and 19, across parts of Concessions 4 and 5, $\frac{3}{4}$ mile. This season the road from the Transcontinental Ry. to the Boskego River was burned off.

Road between Lots 12 and 13, across Concessions 7 and 8, $1\frac{1}{2}$ miles, and across Concessions 1, 2 and part of 3 to the Transcontinental Ry., two miles, ditched and graded.



Headquarters of Northern Development
Branch, Cochrane.



A Settler's Clearing, T. C. Ry., west of
Cochrane.

Road along the south boundary across Lots 1 to 19, six miles. This road was cut out in 1912-13 and parts graded. This season the road was all well ditched and graded across Lots 1 to 19, both inclusive; a bush fire having destroyed the corduroy laid last season, the road required to be reditched.

Road between Concessions 2 and 3, across Lots 25 to 28 and 13 to 18, $3\frac{1}{4}$ miles. This road was cut out; and lots 25 to 28 only, $1\frac{1}{4}$ miles ditched and graded this season.

Road between Concessions 4 and 5, across Lots 1 to 9, from Frederickhouse River west across lots 11, 12, 13, 14 and 15, 4.4 miles. This road was cut, grubbed and burned off this season, and parts of lots 2 and 3 graded.

Road between Concessions 6 and 7, across Lots 25, 26, 27 and 28, $1\frac{1}{4}$ miles. This road was ditched and graded this season.

Road between Concessions 8 and 9, across Lots 4 to 6, one mile, and 11 to 18, $2\frac{1}{2}$ miles. Lots 4 to 6 were cut last season (1913) but not burned. This season these lots were burned and Lots 11 to 18 cut, grubbed and burned off. Road across Lots 24, 25, 26 and 27, $1\frac{1}{4}$ miles, cut out and partly burned.

Road between Concessions 10 and 11, across Lots 11 and 12, .6 mile. This road was cut out this season and graded.

Road along the north boundary across Lots 1 to 6, two miles. This road was cut in 1912 but was not all burned or grubbed. This season the grubbing, burning and grading was finished.

Township of Leitch:

Road between Concessions 2 and 3, across Lots 1, 2 and 3, one mile. This road was cut, grubbed and burned this season.

Road between Concessions 6 and 7, across Lot 1, .4 mile. This road was cut last season (1913). This season it was graded and a good bridge, 25 ft. span, erected over a creek on Lot 1.

Township of Blount:

Road between Concessions 6 and 7, across Lot 28, .4 mile. This road was partly cut last season. This season the cutting, grubbing and burning was completed.

Road along the south boundary, across Lots 19 to 28. This road was cut and graded last season. This season the bad spots (owing to the destruction of corduroy by bush fires) on the road were repaired and a new bridge erected over Lillabelle Creek, the old bridge having been destroyed by a bush fire.



Constructing bridge at Frederickhouse River, five miles west of Cochrane; 200 ft. long.

Township of Glackmeyer:

Road along the west boundary. This road was cut and graded in 1912. This season it was in need of repair owing to bush fires and was regraded in places for a distance of $4\frac{1}{2}$ miles.

Road between Lots 18 and 19, across Concessions 1 to 12. This road was cut and graded some years ago. This season parts of the corduroy were badly burned, and Concessions 7 to 12 were regraded, $4\frac{1}{2}$ miles, and the corduroy partly renewed.

Road along the south boundary, six miles. This road was regraded this season owing to partial destruction by forest fires of corduroy in places, and rutting during the wet weather in the early part of the season.

Road between Concessions 4 and 5, Lots 1 and 2 to the Abitibi River and Lots 25 to 28 were cut this season. Lots 3, 4 and 5 and part of 6 were graded, also Lots 26 and 27, $1\frac{3}{4}$ miles.

Road between Concessions 8 and 9, across Lots 13 to 18, were cut and graded, two miles this season, and Lots 19 to 28, 3.2 miles, graded. A 50-foot pile bridge was erected over Lillabelle Creek on Lot 23.

Road between Concessions 10 and 11, across Lots 13, 14 and 15, one mile. This road was cut last season (1913) but the burning was not completed. This season the burning was finished and two culverts constructed on Lot 13.

Township of Kennedy:

Road along the west boundary, a distance of 1.7 miles, across part of Concessions 3, 4, 5 and 6. This road was cut last season but the burning not finished. This season the burning was completed.

Road between Lots 12 and 13, across Concessions 7 and 8, $1\frac{1}{2}$ miles. This road was cut last season (1913) but the burning was not finished. This season the burning was completed.

Road between Concessions 4 and 5, across Lot 27, .3 mile. This road was cut out and burned.

Road between Concessions 6 and 7, across Lots 1 to 16, five miles. This road was cut last season and partly burned; the burning was completed this season.

Township of Fournier:

Road between Lots 10 and 11, across Concession 6, one mile. This road was cut, burned and grubbed this season.

Road between Lots 8 and 9, across Concession 6, $1\frac{1}{4}$ miles. This road was cut, grubbed and burned off this season.

Road between Lots 4 and 5, across Concession 6, $\frac{1}{2}$ mile. This road was cut, grubbed and burned off this season.

Road between Concessions 3 and 4, across Lots 1, 2, 3 and 4, two miles. This road was cut, grubbed and burned off this season.

Township of Lamarche:

Road along the west boundary across Concessions 2 to 6. This road was cut and partly ditched last season. This season $2\frac{1}{2}$ miles of the road was graded; and part of the road which was graded and corduroyed last season, but was burned by bush fires, was this season repaired.

Road between Lots 10 and 11, across Concessions 4, 5 and 6, three miles. This road was cut and graded.

Road between Lots 8 and 9, across Concessions 1 and part 2, $1\frac{1}{2}$ miles. This road was cut in 1913 and this season it was burned and graded.

Road between Lots 6 and 7, across Concessions 2 to 5 and part of 1, $4\frac{3}{4}$ miles. This road was cut last season. This season the road was all burned off and graded. Two pile bridges, one on Concession 2 and one on Concession 3, were constructed.

Road between Concessions 1 and 2, across Lots 5 and 6, one mile. This road was cut and graded. A pile bridge was erected over Wicklow River on Lot 3.

Road between Lots 2 and 3, across Concessions 4, 5 and 6, three miles. This road was cut by the Colonization Branch in 1912 but not burned or ditched. This season the road was graded.

Township of Brower:

Road along the west boundary, across Concessions 5 and 6, two miles. This road was regraded this season, the forest fire of 1914 having burned out the corduroy.



Beautifully wooded shore of Coney Island in Lake Abitibi.

Road between Lots 10 and 11, across Concession 6, one mile. This road was cut and graded this season.

Road between Lots 6 and 7, across Concession 4, one mile. This road was cut and graded from Transcontinental Ry. south 50 chains this season, and cut and grubbed north of Transcontinental Ry. 30 chains.

Road between Lots 2 and 3, across Concessions 3 to 6, four miles. This road was regraded this season.

Road between Concessions 2 and 3, across Lots 1 and 2, one mile. This road was regraded this season.

Road between Concessions 3 and 4, across Lots 5 to 10, two miles. This road was cut last season (1913). This season the burning was completed and the road graded across Lots 6 to 9.

Road between Concessions 4 and 5, across Lots 9 to 12. This road was cut by the Colonization Branch in 1912; and this season $1\frac{1}{2}$ miles was burned off, Lot 12 partly ditched and a pile bridge erected over Brule Creek on Lot 11.

Road on Concession 4, from Abitibi Station east to road between Lots 6 and 7, $\frac{1}{2}$ mile. This road was cut, grubbed and burned off this season.

Township of Fox:

Road along the west boundary, across Concessions 1 and 2, two miles. This road was cut in 1912, and this season the road was graded and a bridge erected on Concession 2 across a small stream.

Road between Concessions 2 and 3, across Lot 12 to Transcontinental Ry., $\frac{1}{4}$ mile. This road was cut and graded this season.

Township of Clergue:

Road between the north and south half of Lot 10, Concession 6, from the side road between Lots 10 and 11 to Porquois Junction Station on the Temiskaming and Northern Ontario Ry., $\frac{1}{2}$ mile. This road was graded this season.

Road between Concessions 5 and 6, across part of Lot 9, Lots 10, 11 and 12, $1\frac{3}{4}$ miles. This road was cut and partly grubbed and burned off this season.

Road between Lots 10 and 11, across Concession 6, one mile. This road was cut by the Colonization Branch in 1912. This season it was all burned and grubbed, and the north half graded.

Road along the east boundary, across Concessions 4, 5 and 6, three miles. This road was cut 1912-13 and this season the burning was completed.

Road along the east side of the Temiskaming and Northern Ontario Ry. from Monteith to Porquois Junction. This road was started last season (1913). This season the road was completed and three bridges constructed across small creeks. $5\frac{3}{4}$ miles grading, $2\frac{1}{4}$ miles cut out.

Township of German:

Road between Lots 10 and 11, across Concession 5 and part of Concession 6, $1\frac{3}{4}$ miles. This road was cut, grubbed and burned off this season.

Road between Concessions 4 and 5, across Lots 11 and 12, one mile. This road was cut, grubbed and burned off this season.

Road along the west boundary, across Concessions 4 to 1, $4\frac{1}{4}$ miles, to Night Hawk Lake. This road was cut, grubbed and burned off this season.



Guard at Interned Aliens' Camp, Kapuskasing.



Interned Aliens at Work Clearing Experimental Farm at Kapuskasing, 70 miles west of Cochrane.

Townships of Shackleton and Fauquier:

Road along the north limit of the Transcontinental Ry. from the Ground Hog River west to Moonbeam Station, seven miles. This road was cut last season. This year seven miles were burned off and ditched and graded from Ground Hog River west for $2\frac{1}{2}$ miles.

Street in the Town of Cochrane, the approaches to the road around the south end of Commando Lake, $\frac{1}{4}$ mile. Grading and cutting down hills.

Ferry on the south boundary of the Township of Glackmeyer. A ferry was constructed over Abitibi River, 16 ft. x 28 ft., operated by a cable 400 feet long, capable of conveying passengers and teams.

Bridge, 200 feet long on the south boundary of the township of Clute, over the Frederickhouse River, was constructed on three piers filled with rock.

Road in the Townships of Whitney and Tisdale between the towns of Porcupine and Timmins. That portion of the old road built some years ago between Porcupine, Golden City on the Temiskaming and Northern Ontario Ry. and South Porcupine was surfaced with gravel and stone from the mines $2\frac{1}{2}$ miles; $2\frac{1}{2}$ miles between South Porcupine and Schumacher was regraded and surfaced with gravel and stone, and $\frac{1}{4}$ mile near Schumacher and the McIntyre Mine stoned. A bridge across a creek on Lot 5, Concession 2 and 3, Tisdale, was constructed.

Road in the Townships of Tisdale and Delora, from the Town of Timmins to the Hollinger Reserve Mine. This was an old road, and this season the bad spots were repaired, old crosslay replaced and in several places the road was shortened. This road is about three miles in length and has an average width of twenty-five feet.

A winter mining road from Earlton Branch of Temiskaming and Northern Ontario Ry. from the foot of Elk Lake, southerly to mines in the Maple Mountain District, having a length of twelve miles was cut out.

ROADS IN THE VICINITY OF THE TOWN OF HEARST, TRANSCONTINENTAL RY.

New roads cut out, not graded	15.75 miles
Roads graded, new and old	19.5 "
Roads burned and grubbed only	5.2 "

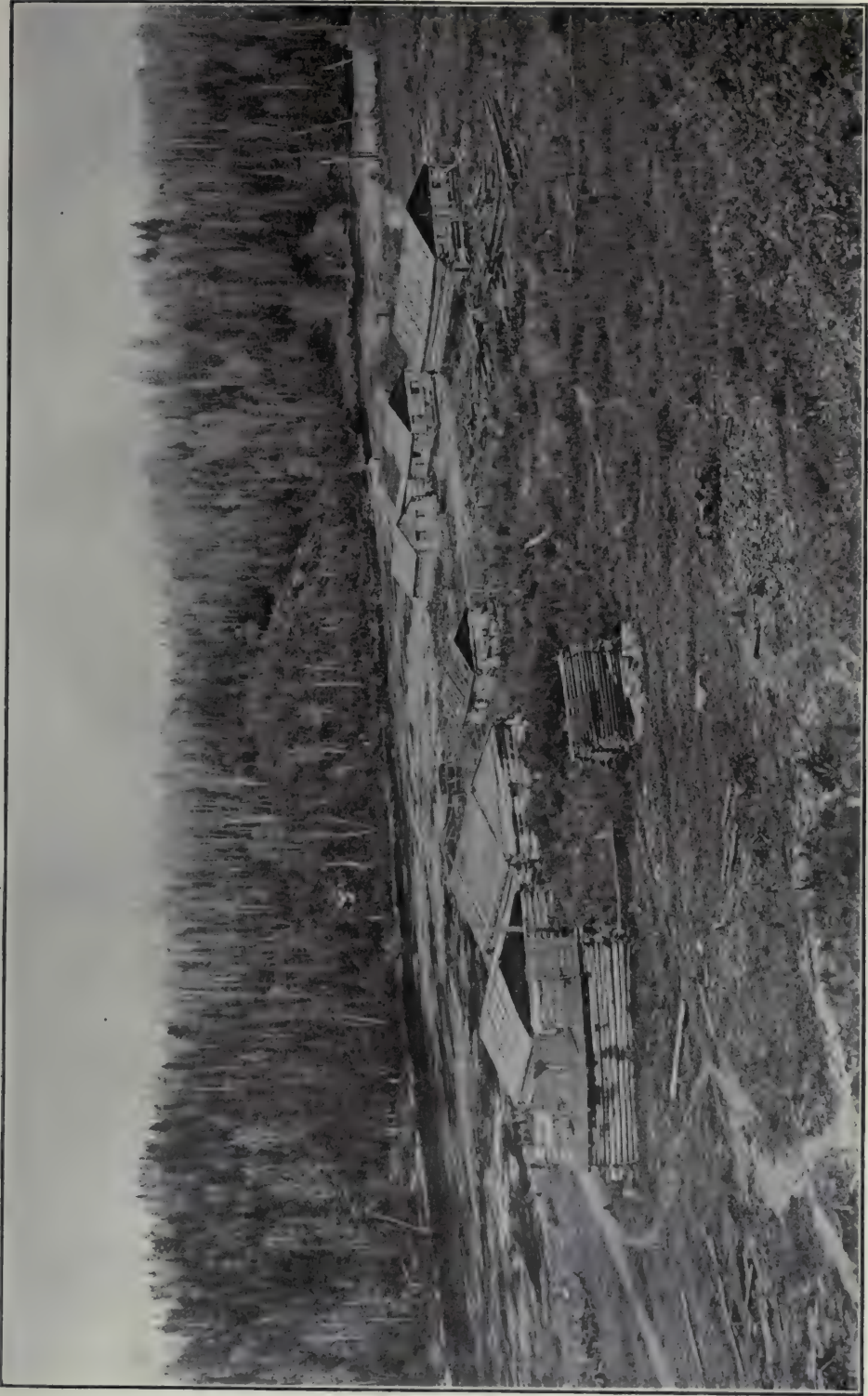
Road along the north side of the Transcontinental Ry., across the township of Kendall and part of the townships of Way and Hanlan. This road was cut last season. This year six miles in Kendall were graded and half-mile in Way; also $3\frac{1}{2}$ miles additional burned and grubbed.

Township of Casgrain:

Road across the west boundary across part of Concession 1, .15 of mile of this road was graded.

Road between Lots 24 and 25, across Concessions 1 and 2, $1\frac{1}{2}$ miles of this road was cut, grubbed, and burned off this season.

Road between Lots 18 and 19, across Concession 1, $\frac{3}{4}$ mile. This road was cut, grubbed and burned off this season.



The clay banks of the Nagagami River, Transcontinental Railway, 170 miles west of Cochrane, another of Northern Ontario's fine speckled trout streams, showing the Transcontinental Railway construction camps.

Road along the south boundary, across Lots 13 to 29. This road was cut last season. This year $3\frac{1}{2}$ miles across Lots 14, 15, 16, 17, 18, 23, 24, 25, 26, 27 and 28 were graded and 1.7 miles burned.

Road between Concessions 2 and 3, across Lots 15 to 28, $3\frac{1}{2}$ miles. This road was cut, grubbed, and burned off this season, with the exception of Lot 27.



Constructing bridge across Mattawishquia River near Hearst.



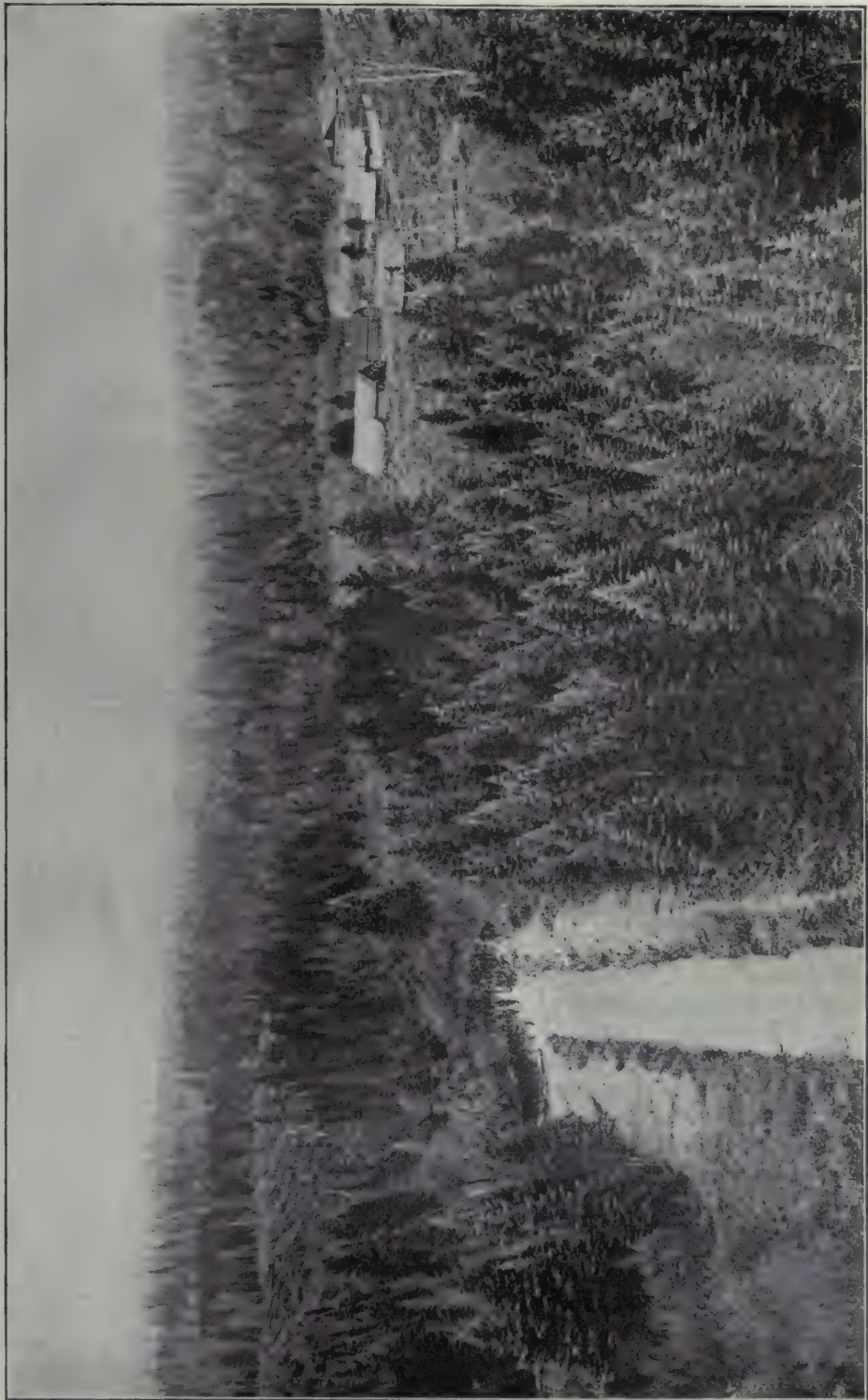
A view along the Kapuskasing River between Cochrane and Hearst on the Experimental Farm.

Township of Kendall.

Road along the west boundary, across Concessions 9 to 12, three miles. This road was cut out last season and graded this season.

Road between Lots 24 and 25, across Concessions 11 and 12, $1\frac{1}{2}$ miles. This road was graded this season.

Road between Lots 18 and 19, across parts of Concessions 10, 11, and 12, two miles. This road was cut, grubbed and burned off this season.



Skunk River, Transcontinental Railway, 168 miles west of Cochrane, showing the splendid clay lands in the valley, and one of Northern Ontario's fine speckled trout streams.

Road between Lots 12 and 13, across Concessions 7 to 10, 2.1 miles was graded this season. The road was cut out last season.

Road between Concessions 8 and 9, across Lots 13 to 29, $5\frac{1}{4}$ miles. This road was cut, grubbed, and burned off this season.

Road between Concessions 10 and 11, two miles. Lots 19, 20, and 21 were cut and burned this season, and Lots 22, 23, and 24 were graded this season, the cutting having been done last season.

Road along the west and east banks of the Mattawishquia River from the Transcontinental Ry. north across part of Concessions 10, 11 and 12, $2\frac{1}{4}$ miles. This road was cut and one half grubbed and burned off and half-mile graded this season.

A bridge across the Mattawishquia River, north of the Transcontinental Ry., was partly constructed, three rock-filled piers, abutments and stone approaches have been completed. The river is 100 feet wide. The bridge will be completed in March. The bridge, when completed, will give to the settlers east along the railway access to Hearst.

Streets in the Village of Hearst. Front and Ninth Streets were regraded $1\frac{1}{4}$ miles. This was necessary owing to the destructive forest fire which swept over the town, burning out all culverts and corduroy laid last season.

A trunk sewer was constructed on 9th Street from Front Street south to the Mattawishquia River, a distance of 2,200 feet, also one along George and 10th Streets, 1,320 feet.

During the months of July and August two forest fires swept over the town of Hearst, destroying all the buildings in the town, except the Transcontinental Ry. station and round-house, a few small shacks, and one cottage. In one of the fires the office and store-house of the Northern Development Branch, constructed last season, including supplies and camp equipment valued at \$850 was destroyed. A small building has since been constructed to store supplies in.

EXPERIMENTAL FARMS AND GARDEN PLOTS.

At Groundhog River on the Transcontinental Railway, 50 miles west of the Town of Cochrane, an experimental garden was started. At this point the railway contractors have grown vegetables successfully for the last four or five years. The buildings occupied by the contractors were secured by this Branch and are now used as headquarters for work along the Transcontinental Railway between Cochrane and Hearst.

About the 1st of May, operations were started by cutting down and clearing off about 5 acres of land adjoining the small garden plot cleared by the railway contractors. The land was heavily timbered with spruce, balsam of gilead, poplar and white birch, and is situated along the west bank of the Groundhog River south of the railway rising gradually from the water's edge to a height of about 25 feet. The soil is a rich brown clay and clay loam, overlaid with about six inches of black loam. Plots of Spring wheat, barley oats, peas, potatoes and all kinds of vegetables were put in and ripened well giving a good production. Potatoes were planted at different periods from May 19th to July 1st. The Irish Cobbler planted 27th of May gave a yield of 192 bushels per acre; the Early Rose planted



Bridge over Wahtaybeg River, North of Matheson.

June 8th yielded 268 bushels per acre; the Delaware yielded 175 bushels per acre. The potatoes planted July 1st yielded 102 bushels per acre.

All vegetables such as radishes, carrots, garden peas, watermelons, parsnips and lettuce grew abundantly. The white and yellow Dutch onion sets yielded 242



Field of Rye on the Northern Development
Experimental Farm, Cochrane.



Onion Bed, experimental plot at Ground Hog.

bushels per acre, planted on the 29th of May. Strawberry plants, gooseberry, red raspberry and red currant bushes planted on the 27th of May gave every indication of being productive. Cabbages also grew abundantly, the larger ones having an average weight of 16 pounds, many of them weighing from 20 to 24 pounds, and



A view of the Northern Development Experimental farm plot on the Ground Hog River.



Headquarters of the Northern Development Branch, showing garden plot,
Ground Hog River, T.C.R.

a few of them as high as 30 pounds. Wheat, peas, barley and oats ripened and gave a good yield.

Besides the garden plot near the Groundhog River a farm was located about 2 miles west of the river where the soil is a clay loam with about five inches of rich humus on the surface and the land gently rolling; the country was partially burned over several years ago and is now grown up with a second growth of poplar and spruce. The work on this farm was commenced about the 1st of May and 12 acres of spring crop sown. Seed planting was begun about the middle of May; 7 acres were plowed and put into Spring wheat, oats, barley, peas, rye, potatoes, turnips and other vegetables. In addition 5 acres were cleared, disced and harrowed and different varieties grown on this as a test. Spring wheat was sown on the 16th of May, and oats, barley, peas and rye sown at intervals during the balance of the month. Each variety ripened and gave a sufficient yield to en-



Headquarters of the Northern Development Branch at Ground Hog River, T. C. Ry., showing experimental garden.

courage settlement. Turnips, beets, carrots, parsnips and radishes gave a splendid yield and fully matured by September 2nd. On the low land, however, the potatoes were injured by summer frosts on or about the 1st of August.

On the garden plot on the bank of the river, beans and corn were injured by summer frosts before maturing, also tomatoes, watermelons and cucumbers.

Clover and timothy grew in great abundance both at the garden plot and farm. Rye grew to a height of over six feet.

During the months of August and September a further area of 14 acres was cleared and cultivated, and 4 acres of it sown in Fall wheat and 1 acre in Fall rye; this was sown on the 21st of August. The Fall wheat and rye got a good strong growth before the snow fell and had every appearance of being able to withstand the winter.

On the west farm there is now about 30 acres ready for spring crop. A small area of Fall wheat was also sown on the garden plot.

At the Town of Hearst at the junction of the Algoma Central Railway and the Transcontinental Railway, different kinds of grain and vegetables were planted and had every indication of a good yield. Unfortunately, however, a forest fire which swept over that section of the country, burning out almost the entire town, reached our garden and farm plots and completely destroyed the grain and vegetables.

On Lot 27, Concession 1, Township of Glackmeyer, about 1 mile west of the town of Cochrane, an experimental plot was rented where the land is comparatively level, the original forest growth being almost entirely spruce. The land had been burned over and partially cleared a year ago. Operations were commenced about



Another view of the Ground Hog experimental garden.

the middle of May and all kinds of grain and vegetables planted. Wheat, barley, peas, rye and oats were sown between the 14th of May and the 1st of July; they all matured and ripened before the middle of September. As the land was low lying and had from six inches to eight inches of vegetable mould on the surface, there was an abundant growth of straw. The grain was well filled and would compare favorably with crops grown in the best sections of older Ontario. Potatoes, onions, cabbages, beets, carrots, parsnips, radishes and turnips were also a first-class crop. Beans, corn and tomatoes were injured by the summer frosts about the 1st of August and did not mature. Beets, cabbages and onions were an exceptionally fine crop. This particular farm lot was selected to test the character of the soil on the low lying land in the district; the land before it was cleared had every appearance of a swamp; on the lot there was a small area of about a quarter of an acre of timothy and clover which yielded a splendid crop.

At the headquarters of the Northern Development Branch at the east end of the Town of Cochrane, all kinds of grain and vegetables were planted. The land is situate between two small lakes at an elevation of 20 feet above the water. To the south of the garden plot is a virgin forest of white birch, poplar, and spruce. The land is a clay loam well drained, but had not been cultivated heretofore. A splendid sample of Spring wheat was produced and exhibited at the Toronto Exhibition. All other kinds of grain matured about the end of the first week in September, except a late variety of peas. At this garden there was no sign of summer frosts until about the middle of September. Garden peas and beans ripened, and corn was a fair crop, fit for table use, but did not ripen. All classes of vegetables gave a good yield.

Throughout the district there were several summer frosts which injured vegetables, including potatoes, more particularly on the low lying lands or where



Cabbage, weighing 30 lbs, grown on Ground Hog experimental plot, T. C. R.

the land had not been properly cultivated; but as far as I could judge in visiting different parts of Northern Ontario, from the Rainy River Valley to the Ottawa River and along the north shore of Lake Huron, I find that the injury done by summer frosts in the Claybelt was no greater than that done in other sections; and from my observations, the crops were as good in the Claybelt as in most sections north of Parry Sound.

The soil is exceptionally suitable for the growth of timothy and clover. With proper cultivation, where large areas are cleared off, I am convinced that there will be no difficulty in growing all kinds of grain and vegetables. Where fall wheat was grown it matured; the crop was exceptionally good and in no instance did I find it had received injury from summer frosts.

J. F. WHITSON,

Commissioner.

NOVEMBER 18TH, 1914.

THE HONORABLE THE PREMIER.

SIR,—I beg to recommend the expenditure of the following amounts under 2 Geo. V. Chap 2, on the construction of new roads, repairing and finishing of old roads, the construction of bridges and the operation of the Experimental Farm at Ground Hog River, 52 miles west of the Town of Cochrane on the Transcontinental Railway, the Experimental Farms and gardens at Cochrane and Hearst.

District of Rainy River.

In the Rainy River Valley, to complete and re-surface roads constructed last season, also the opening up of new roads tributary to the trunk roads constructed last season \$35,000

District of Kenora.

The construction of new roads in the agricultural section north-east and north-west of Dryden and in the valley of the Wabigoon River in the vicinity of the Grand Trunk Pacific Railway and along the Canadian Pacific Railway east of Kenora 25,000

District of Port Arthur.

Re-surfacing trunk roads graded last season and the construction of short roads adjacent to the trunk roads, also construction of new roads, north of the Township of Dorion along the Canadian Pacific Railway .. 40,000

District west and south of Fort William.

The completion and extension of the trunk roads begun last season and re-surfacing and gravelling portions of the trunk roads partly constructed last season, including the Pigeon River or International Boundary and Duluth Road, also the completion of the bridge across the Kaministiquia River at Kakabeka Falls 50,000

Sudbury and Sault Ste. Marie Trunk Road.

Improving and gravelling parts of trunk roads between Bruce Mines and Cuttler, partly under construction last season 50,000

District of Sudbury.

Re-surfacing parts of trunk roads constructed last season in the Blezard and Chelmsford Valleys, construction of short roads through the Blezard Valley, the completion and extension of the West Shining Tree Mining Road and the repairing of Long Lake Mining Road, also construction of road from Coniston Village South to the Industrial Farm in the Township of Burwash 40,000

Sudbury and North Bay Road.

The construction of a trunk road from the Town of Sturgeon Falls west to near the Town of Sudbury	50,000
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District of Nipissing.

The construction of trunk road through the Indian Reserve between the towns of North Bay and Sturgeon Falls, partly constructed in 1914. To cover one-half of cost	20,000
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The completion of the trunk road from the Village of Callander South to the Town of Powassan, also the completion of a trunk road from near Callander through the Township of Chisholm	15,000
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Haileybury and South Lorrain.

The completion of the trunk road through the mining and agricultural district south of Haileybury	8,000
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Mining road from Elk Lake Branch of the Temiskaming and Northern Ontario Railway to Maple Mountain Mining Section and other mining roads in the vicinity of Elk Lake	15,000
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The completion of the South Porcupine and Timmins mining road and other mining roads in the vicinity of Porcupine	12,000
---	--------

Colonization roads in the vicinity of Long Lake west and north of the Village of Charlton	20,000
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Temiskaming and Northern Ontario Railway.

Roads along the Temiskaming and Northern Ontario Railway from Earleton north to Cochrane and extending west as far as Charlton and Porcupine and east as far as the agricultural lands extend, including the construction of a bridge over the White River	90,000
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Transcontinental Railway.

Roads along the Transcontinental Railway from the Quebec boundary west to the Town of Hearst, to cover the completion of roads cut out last year, the construction of new roads where settlement has taken and is taking place, the completion of bridges across the Frederickhouse River near Cochrane and the Mattawishquia River near Hearst	75,000
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The completion of the road from Pembroke to the Petawawa Military Camp	10,000
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The extension of the Mattawa-Pembroke trunk road east from Mattawa	5,000
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For the operating of the experimental farms at Ground Hog River on the Transcontinental Railway, and at Cochrane and Hearst which were begun last year with a view to testing the climatic conditions of these sections of the country	3,000
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Unforeseen work, exploration and surveys of new roads, renewing of old bridges and construction of new roads	32,000
---	--------

Office and engineering expenses, equipment and plant	20,000
--	--------

	\$615,000
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I have the honour to be, Sir,

Your obedient servant,

J. F. WHITSON,

Commissioner.



REPORT

OF THE

Minister of Lands, Forests and Mines

OF THE

PROVINCE OF ONTARIO

For the Year Ending 31st October

1915

PRINTED BY ORDER OF
THE LEGISLATIVE ASSEMBLY OF ONTARIO



TORONTO

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1916

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Report of the Minister of Lands, Forests and Mines of the Province of Ontario

For the Year Ending 31st October, 1915

To His Honour the Lieutenant-Governor of the Province of Ontario.

MAY IT PLEASE YOUR HONOUR:

I have the honour to submit for the information of your Honour and the Legislative Assembly a report for the fiscal year ending 31st October, 1915, of the management of the Crown Lands of the Province.

It is with deep regret that I have to report the death of Aubrey White, C.M.G., (July 14th, 1915, age 70), late Deputy Minister for this Department.

Mr. White was actively engaged in the administration of the affairs of this Department for nearly thirty years. He was an able, valued and trusted public official, and his loss to the service is inestimable.

I also regret to report the death of Mr. E. S. Williamson, (October 30th, 1915, age 43), late secretary for the Department.

Mr. Williamson has been an official of this Department since 1889, and his services have been much appreciated.

CLERGY LANDS.

The collection on account of Clergy Lands was \$99.20. No land was disposed of during the year. (See Appendix No. 3, page 7.)

COMMON SCHOOL LANDS.

The area sold during the year was 20.30 acres. The collection on account of those and former sales was \$3,987.37. (See Appendix No. 3, page 7.)

GRAMMAR SCHOOL LANDS.

There were no sales. The collection on account of former sales was \$1,003.29. (See Appendix No. 3, page 7.)

UNIVERSITY LANDS.

The area of these lands sold during the year was 5,229.50 acres for \$2,614.75. The collection on account of these and former sales was \$1,360.57. (See Appendix No. 3, page 7.)

CROWN LANDS.

There was sold during the year for agricultural and town site areas 146,307.19 acres for \$82,908.28. The collection on account of these and former sales was \$51,294.40. There was sold for mining purposes 17,277.85 acres for \$45,439.10. There was collected on account of these and former sales \$46,584.88.

There was leased for mining purposes 2,092.04 acres for \$2,092.04. There was collected on account of these leases and those of former years \$13,841.58. There was leased of Crown lands an area of 3,272.45 acres for \$1,209.21. There was collected on account of these and the leases of former years \$39,637.79.

The total area of Crown lands disposed of by sale and lease during the year was 174,199.33 acres for a value of \$134,433.38, as compared with 174,961 acres sold and leased in 1914 for \$156,704.41. The total collection on account of the sales, leases, etc., was \$157,809.08. (See Appendix No. 3, page 7.)

It will be observed that there has been an increase in the number of sales made this year. The net increase in the number of purchases is 179, representing some 2,637 people. Under existing conditions this is a very creditable showing, notwithstanding the large percentage of men who have enlisted for Active Service, that might have gone in to the North country.

The Transcontinental Railway and Canadian Northern Railway are now operating a tri-weekly service from Toronto to Winnipeg, thus greatly improving transportation facilities in the sections through which they pass.

FREE GRANTS.

For the year ending October 31st, 1915, there were 1,355 persons located for Free Grant land, and in addition 200 purchased portions of Free Grant territory; and 133 locatees were permitted to assign their interests to individuals who entered on the land. This aggregates a total of approximately 1,700 persons taking up land in Free Grant sections for an area of 208,000 acres.

While this number is less by 400 than the preceding year, it may be remarked that the difference is particularly noticeable in the Port Arthur Agency in Thunder Bay where there is a falling off of over 300; in the Stratton Agency in Rainy River of over 100, and in the Dryden Agency, Kenora, of 73. The falling off in these sections may be attributed in part to the open land being fairly well taken up, and also to the recruiting call, many would-be settlers no doubt having enlisted for service in the Empire's war.

There is a reduction of over 100 in number who purchased parcels in Free Grant territory.

Patents issued to 621 settlers who filed proof of completion of settlement duties.

The only new land opened during the year was part of the Township of Redvers, which has been attached to the Agency of Dryden.

MILITARY GRANTS.

The total number of military certificates issued to date, under the Veterans Land Grant Act, I Edward VII, Cap. 6, and amendments thereto, is 13,998.

During the year there have been 34 certificates located, making in all a total of 8,098 located.

There were 8 certificates surrendered to the Crown for the \$50.00 commutation, this makes a total of 3,242 certificates surrendered.

In 21 cases the certificates have been surrendered and applied in payment of lands purchased from the Crown, making a total of 742 that have been applied in this manner.

During the year there have been 192 patents issued for lands located by veterans, making a total of 6,932 thus disposed of.

The total number therefore of certificates that have now been redeemed is 12,145, leaving 1,853 still outstanding.

The locatees of all lands granted under this Act, must apply for their patents for such land before ten years have expired from date of location. If this application for patent is not made within the ten years, then the land comes under the settlement regulations, and unless the settlement duties are proceeded with, the locations are liable to cancellation.

THE MINING INDUSTRY.

Returns made to the Ontario Bureau of Mines show that the production of the metalliferous mines and works of the Province for the nine months ending 30th September, 1915, was as follows: The table also shows the changes as compared with the same period of 1914.

	Value.	Increase or Decrease.	
Gold	\$5,826,941	I.	\$1,884,093
Silver	8,030,469	D.	2,051,760
Copper	2,024,658	I.	359,762
Nickel	5,369,536	I.	1,345,980
Iron ore	601,044	I.	221,126
Pig iron	4,510,906	D.	1,933,307
Cobalt ore	12,472	D.	14,091
Cobalt metal	66,552	I.	66,552
Nickel metal	4,762	I.	4,762
Cobalt and Nickel oxides, etc.	124,088	D.	331,403

NOTES.

Precious Metals:

The increase in the production of gold amounts to one-third. The gold districts of Northern Ontario are fulfilling the prediction made several years ago, that they would make good the loss caused by the waning of the silver mines of Cobalt. Thus the combined value of the gold and silver output of the first nine months of the present year was only \$167,661 less than for the same period of 1914, notwithstanding the fact that the yield of silver fell off over 20 per cent. Part of this decrease is due to the low prices which prevailed during the whole nine months, but which made a sharp and decided recovery in November. In gold the Porcupine mines make an excellent showing, practically every mine on the list having increased its output. Hollinger continues to lead, being now coupled up with Acme, whose ore is crushed under the same roof. The new producers are Dome Lake in the Porcupine camp, and Dominion Reduction Company, from the latter's spectacular free gold property in Munro township.

Nipissing heads the list of silver mines at Cobalt, with Mining Corporation of Canada, Coniagas, Kerr Lake, Seneca Superior and Temiskaming following in the order named. Silver to the extent of 50,527 ounces, was recovered from the bullion of the gold mines.

Nickel and Copper.—The Sudbury mines are being worked to the maximum capacity, and the production of nickel for the nine months nearly equals the largest previous output for a full year. Over 75 per cent. of the output is made by the Canadian Copper Company, but the operations of the Mond Company are now more extensive than formerly, and its output has correspondingly increased.

The yield of copper was also much greater than in the corresponding period of 1914, and nearly equalled the total output of that year. It was all contained in the Sudbury mattes, which are sent to Bayonne, N.J., and Clydach, Wales, for final treatment.

Iron.—The shipments of ore show an increase, the output coming from Magpie, Helen and Moose Mountain. Stock piles were drawn upon at the two latter, and a limited quantity of briquettes were marketed by Moose Mountain. The output of pig iron suffered a decrease of 28 per cent. in quantity and a slight lowering in the average selling price per ton.

Silver By-products.—Metallic nickel and cobalt are now produced from the silver ores of Cobalt by the smelters at Deloro and Thorold. Of the former 98,316 pounds and of the latter 24,962 pounds were made and shipped during the nine months. The trade in cobalt and nickel oxides has been heavily affected by the war, and the quantities shipped were much below those of the corresponding period of 1914.

Molybdenite.—Efforts are being made to produce molybdenite, which is in demand in England for the manufacture of steel for ordnance-working tools. The British Government has requisitioned all supplies of this mineral arriving in Britain at the rate of 105 shillings per unit delivered, on the basis of 90 per cent. concentrates. Molybdenite occurs in pockets in many parts of eastern Ontario, and there should not be much difficulty in obtaining a considerable supply to help meet the needs of the English steel-makers.

COLLECTIONS.

The total revenue of the Department from all sources was \$2,021,989.14. Of this \$51,284.40 came from agricultural lands and town sites; mining lands \$46,584.88; mining and crown leases \$53,479.37; miners' licenses, permits and recording fees \$52,308.70; royalties \$52,860.60; supplementary revenue tax \$440,079.91. From woods and forests the revenue was \$1,528,104.82 made up of the following items, bonus \$507,241.43; timber dues \$928,351.38; ground rent \$89,952.01; transfer fees \$2,560.00. (See Appendix No. 4, page 8.)

DISBURSEMENTS.

The total expenditure of the Department for ordinary services was \$484,482.00. Some of the principal items were: Agents' salaries and disbursements \$16,855.71; homestead inspectors \$12,854.58; Crown timber agents \$29,892.74; wood ranging and estimation of timber \$146,480.84; fire ranging \$257,731.63; forest reserves, fire ranging, etc., Temagami reserve \$31,740.34, Metagami reserve \$7,148.78; Mississauga reserve \$15,768.57; Nipigon reserve \$9,383.24; Eastern reserve \$2,482.66; Sibley reserve \$790.00; mines and mining \$47,066.01; mining recorders \$21,259.94; surveys \$26,999.35; refunds \$14,697.63; contingencies, lands and forests \$24,480.05; bureau of mines \$8,942.20.

A further sum of \$82,640.62 was expended under the direction of the Department, distributed as follows: Algonquin Park \$35,384.38; Quetico Provincial Park \$13,443.88; expenditure under Bounty Act, 7 Edward VII, cap. 14, \$31,025.62; Veteran's Commutation \$400.00; Royal Nickel Commission \$2,387.33. (See Appendices Nos. 6 and 7, pages 10 and 31.)

WOODS AND FORESTS.

The revenue accrued from woods and forests for the year ending 31st October, 1915, was \$1,629,640.60, a decrease of \$379,481.83. The falling off is due almost entirely to decrease in number of railway ties taken out, 729,164 being taken out last season as against 5,439,845 the previous season.

The revenue collected during the year from woods and forests amounted to \$1,528,104.82, a decrease of \$146,783.11.

The revenue from timber dues was \$928,351.38, a decrease of \$184,129.00 as compared with last year.

The collections on account of bonus amounted to \$507,241.43, an increase of \$53,074.19 over that of the preceding year.

The collections from ground rentals amounted to \$89,952.01 which is \$13,958.30 less than amount collected from same source for the year ending October 31st, 1914.

The revenue from transfer fees was \$2,560.00 as against \$4,330.00 for preceding year.

The area under license last year was 15,711 $\frac{3}{4}$ square miles, a reduction in area of 1,621 $\frac{1}{4}$ square miles. The area under license varies from year to year for the following reasons: Areas cut over are dropped from the license; license does not issue on account of non-payment of ground rent; failure on the part of licensees to pay timber dues owing.

There was surrendered during the year 602 $\frac{1}{4}$ square miles. New licenses were issued for territory covering 312 square miles.

VOLUME OF OUTPUT.

The production of pine timber, saw logs, square timber, etc., last year was 407,874,044 feet board measure, an increase of 25,292,017 feet board measure over quantity produced last year. The output of timber other than pine, was 59,308,403 feet board measure as against 77,451,857 feet board measure last year.

The quantity of pulpwood taken off Crown Lands was 301,061 cords as compared with 104,544 cords last year. The number of railway ties taken out last year was 729,164 as against 5,439,845 the previous year.

FINANCIAL CONDITIONS.

The collections from woods and forests, while falling below that of last year, has exceeded the estimated revenue by \$28,104.82, showing that the financial stringency existing in 1914 has not to the same extent forced the lumbermen to postpone their payments.

Lumbering operations have fallen off greatly throughout the Province, and the cessation of railway construction is responsible for the greater portion of the decrease in collections this year.

The export trade is practically at a standstill, and the domestic trade, depending largely upon building construction, has not shown much improvement; consequently prices are low and such conditions do not encourage lumbering or manufacture.

TRADE OUTLOOK.

Lumbermen throughout the Province refer to 1915 as the stiffest year they have ever experienced. Nevertheless an optimistic view appears to prevail. From the present outlook it would appear that the output for 1916 will show a substantial increase over that of the present season. It is almost inevitable that at the termination of the war there must be a vastly increased demand for Ontario lumber, both in domestic and export markets.

SALES.

No large sales of timber have been made this year. Several small berths have been disposed of, for the most part being burnt over or containing fallen timber.

FIRE-RANGING.

We had on duty last season on Crown Lands, railways and in the forest reserves 442 men distributed as follows: on forest reserves 166; on railways 126; Crown Lands 107. There were 18 chief rangers and 5 deputy chief rangers, 12 inspectors on railways and 8 supervisors on lands under license.

The railway inspectors were appointed by the Department to see that the regulations of the Dominion Railway Board with respect to fire protection were carried out. On the T. & N. O. Railway and the Grand Trunk Pacific Railway the Department had the usual staff of rangers under competent chiefs.

On lands under license there were 286 rangers on duty. These rangers are selected by the licensees, subject to the approval of the Department, which has the power to remove after appointment if the person recommended is not of good character or neglects his duties. These rangers are recommended by the licensees because of their knowledge of the topography of the limits, the location of settlers and general familiarity with points requiring closest supervision. The licensees have to pay the rangers patrolling, and all expenses in connection with fire fighting on their limits.

The territory under license has been divided into districts, over each of which a supervising ranger is placed by the Department, whose duty it is to see that the rangers nominated by the licensees are active in the discharge of their duties and that all limits are properly protected. Should he find any limit unprotected or insufficiently protected, the Department upon receipt of such report may appoint such rangers as it deems necessary for the protection of timber, and the remuneration and other expenses are charged against the limit and license withheld until amount is paid.

The wages of the supervising rangers, eight in number, are paid by the Department in the first place, but are later collected from the licensees *pro rata*.

FOREST RESERVES.

Temagami forest reserve has been divided for fire-ranging purposes into five divisions, over which four chief rangers and one deputy chief have supervision. There was a staff of 101 rangers in this reserve last season.

Two fires occurred damaging about 1,000,000 feet board measure of red and white pine and some 4,000 railway ties.

Mississauga Forest Reserve had a staff of 40 rangers under one chief ranger and three deputy chief rangers. There were no fires in this reserve during the season of 1915.

In the Nepigon forest reserve there were 17 rangers under one chief ranger. There were several fires during the season, but they were controlled before any damage was done to merchantable timber.

The Eastern forest reserve and Sibley forest reserve had the usual staffs of rangers and were free from fire.

The expenditure for extra assistance in connection with the forest fires for all five reserves amounted to only \$243.10.

The total cost of the patrol of forest reserves was \$67,313.59.

RAILWAYS.

Regular staffs of rangers have been on duty on the Transcontinental and T. & N. O. Railways. The Canadian Northern Railway, under the direction of the Dominion Railway Board, became responsible for the fire ranging on their line, inspectors being appointed by the Department to see that the regulations of the Board were observed. On the Transcontinental there were 61 rangers on duty under three superintendents; on the T. & N. O. Railway 68 rangers with three chief rangers.

The cost of patrol of railways was \$56,326.00.

The year 1915 was unusually favorable except for the first two months of the fire-ranging season, when the growth of vegetation was retarded by low temperatures so that fires once started spread rapidly and were difficult to control. During the balance of the season the precipitation was generous and frequent, there being no prolonged dry spell.

The number of fires reported on Crown Lands, railways and forest reserves was 430, of which 372 did no damage to merchantable timber. Of the total number of fires 317 were reported by rangers patrolling the railways, 52 by reserve rangers and 61 by those on other Crown Lands.

Of the causes of fires 57 per cent. were attributed to railway engines and railways; 11 per cent. to settlers; 12 per cent. to causes not ascertained and the remaining 20 per cent. to Indians, prospectors, berry pickers, campers, etc.

In the Port Arthur District there were several fires caused by settlers clearing land. About 200 acres of small timber was damaged, 13 settlers losing their effects as a result of these fires.

The only other fires on Crown Lands that did damage were in the Sturgeon River District, where considerable quantity of pine was injured by fire.

The cost of fire-ranging on Crown Lands was \$54,924.79.

On licensed lands 56 fires were reported, 37 doing no damage. Settlers were held responsible for 14 per cent.; railways 16 per cent.; 25 per cent. were ascribed to fishermen and campers; 33 per cent. to causes unknown; the remainder to squatters, river drivers, lightning and careless smokers.

Fires doing considerable damage occurred in the Townships of McKenzie, Grassett, Ermatinger, Notman and McWilliams and Blyth. The licensees have undertaken to have damaged timber taken out.

The cost of fire-ranging on licensed lands was approximately \$70,000.00.

CULLERS' EXAMINATIONS.

Only one Cullers' examination was held during the past year, viz., at North Bay. Only four candidates succeeded in passing the examination and these were duly granted certificates authorizing them to act as cullers.

(For a list of cullers who passed at this examination see Appendix 23, page 61.)

(For a complete list of licensed cullers see Minister's reports for 1911, 1912, 1913 and 1914.)

CROWN SURVEYS.

The following Crown Surveys have been concluded this year:

Subdivision of part of the Township of Fraleigh, District of Thunder Bay.

Township of Jacques, District of Thunder Bay.

Township of Redvers, District of Kenora.

Township of Upsala, District of Thunder Bay.

Township of McMillan, District of Algoma.

Survey of a line in the Township of Beaumont, District of Sudbury.

INSTRUCTIONS WERE GIVEN FOR THE FOLLOWING SURVEYS.

Townships of Owens, District of Timiskaming.

Outlines of certain townships, District of Algoma.

Survey of a tie line in the vicinity of Kowkash, District of Thunder Bay.

Survey of islands in the Georgian Bay, District of Algoma and Manitoulin.

Survey of a portion of land in the vicinity of Ramsay Station, District of Sudbury.

Survey of certain outlines of townships, District of Algoma.

Survey of islands on the north shore of Lake Huron and Georgian Bay, Districts of Manitoulin, Sudbury and Parry Sound.

Subdivision of the Township of Forbes, District of Thunder Bay.

Survey of islands in Lake Huron, east and north-east of Manitoulin Island, District of Manitoulin.

Survey of certain lands north of the Townships of Ware, Gorham and MacGregor, District of Thunder Bay.

Subdivision of the Township of Colenso, District of Kenora.

Reports of the surveys so far as received and examined will be found in appendices 16 to 22 inclusive, pages 45 to 61.

MUNICIPAL SURVEYS.

On the petition of the Municipal Council of the City of Port Arthur, instructions were issued to survey a portion of the city of Port Arthur in the District of Thunder Bay, between John Street and McVicar and River Streets, and between Algoma and High Streets, being the balance of what was known as the old town plot of Prince Arthur's Landing, and to have the corners of all the streets marked by iron bars, duly planted thereat.

Also on the petition of the Municipal Council of the united Townships of Wilberforce and North Algona, instructions were issued to survey part of the boundary line dividing the Townships of Wilberforce and Stafford, commencing at the 20th concession of Wilberforce and ending at the town line of Alice, and to plant stone or other durable monuments at the front and rear angles of the concession roads above mentioned in the Township of Wilberforce.

Also on the petition of the Municipal Council of the Corporation of the Township of Harwich, instructions were issued to survey the concession line between Concessions II and III in the Township of Harwich, from Lot No. 3 to the waters of the Rond Eau and to plant stone or iron monuments on each side thereof.

Also on the petition of the Municipal Council of the Corporation of the Township of Fenelon, instructions were issued to survey the road allowance between Concessions VIII and IX in the Township of Fenelon, across broken Lot No. 11, or as much farther on either side as may be required to find an original monument and to plant stone or other durable monuments at the angles of the lots.

Also on the petition of the Municipal Council of the City of Hamilton, instructions were issued to survey the limits of Mountain Park Avenue, in the City

of Hamilton, from the west side of Wentworth Street to Lakeview Avenue, and of Wentworth Street from the allowance for road between the 3rd and 4th Concessions of the Township of Barton and the brow of the mountain now in the City of Hamilton, and to plant durable monuments showing the northerly and southerly boundaries of Mountain Park Avenue between Wentworth Street and Lakeview Avenue, and the easterly and westerly boundaries of Wentworth Street between the allowance for road between the 3rd and 4th Concessions of the Township of Barton and the brow of the Mountain.

Also on the petition of the Municipal Council of the Township of Zone, instructions were issued to survey the line in the Township of Zone from between the 3rd and 4th Concessions across Concessions 4, 5 and 6 to the Longwoods Road, and to mark the said line by permanent monuments.

Also on the petition of the Municipal Council of the Township of Goulburn, instructions were issued to survey the 6th Concession Line from Lot No. 25 at the side road to Lot No. 18 in the Township of Goulburn, and to have durable monuments planted at the corners of the above lots.

Also on the petition of the Municipal Council of the Township of Westmeath, instructions were issued to survey the concession line between Concessions 8 and 9, opposite Lots numbers 1, 2 and 3, in the Township of Westmeath, in the County of Renfrew, or as much farther as may be necessary on either side, and to mark the same by permanent stone or other durable material.

Also on the petition of the Municipal Council of the Township of Kenyon, instructions were issued to survey part of the concession road allowance between the 6th and 7th Concessions of the Township of Kenyon, from the east side of Lot No. 7 to the west side of Lot No. 12, and also of the road allowance between Lots numbers 6 and 7 in the 6th Concession, and to plant durable monuments to define said road allowances opposite the above lots.

Also on the petition of the Municipal Council of the Township of North Grimsby, instructions were issued to survey the road allowance between the broken front and the first concession of the Township of North Grimsby, from the easterly limit of the said Township of North Grimsby to the allowance for road between Lots numbers 6 and 7 in the first and broken front concessions, and that durable monuments be planted defining the limits of the .66 foot reservation for a highway between the said broken front and the first Concession of the Township of North Grimsby from the easterly limit of the said Township to the allowance for road between Lots numbers 6 and 7 in the first and broken front concessions.

The following Municipal Surveys have been confirmed under the provisions of the Revised Statutes of Ontario, 1914, Chapter 166, Sections 13 and 14, such surveys being final and conclusive.

Survey of certain streets in the City of Port Arthur in the District of Thunder Bay, including North and South Water Streets, Cumberland Street, Court Street and Algoma Street and all intersecting streets between John Street and McVicar Street.

Also the survey of the road allowance between the 3rd and 4th Concessions south of the base line in the Township of Wolfe Island in the County of Frontenac, across Lots 8, 9 and 10.

Also the survey of part of the town plot of Port Credit in the County of Peel, lying south-west of the River Credit and north-east of Joseph Street in the said village.

Also the survey of the road allowance between Concessions two and three in the Township of Ross, from the proof line between Lots ten and eleven southeasterly to Olmsted Lake.

Also the survey of the road allowance between Concessions VIII and IX in the Township of Fenelon, across broken Lot No. 11.

Particulars relating to these surveys will be found in appendices 14 and 15, pages 42 and 44.

G. H. FERGUSON,
Minister.

Department of Lands, Forests and Mines,
Toronto, October 30th, 1915.

APPENDICES

Appendix No. 1.

Return of Officers and Clerks of the Department of Lands, Forests and Mines for the year ending October 31st, 1915.

Branch.	Name.	Designation.	When appointed.	Salary per annum.	Remarks.
	Hon. G. H. Ferguson	Minister	1914, Dec. 22	\$ 6,000 00	
	Aubrey White	Deputy Minister	1882, Jan. 1	4,400 00	Died July 14, 1915.
	Albert Grigg	Deputy Minister	1915, Oct. 18	3,600 00	
	Geo. Kennedy	Law Clerk	1872, Feb. 1	2,900 00	
	C. C. Hele	Minister's Secretary	1912, Jan. 23	1,800 00	
	E. S. Williamson	Secretary to Department	1889, May 1	1,950 00	Died Oct. 30, 1915.
	Janet Garvie	Clerk	1905, Jan. 1	825 00	Resigned Jan. 30, 1915.
	A. G. Thompson	do	1909, Mar. 24	825 00	
	J. Farrington	Stenographer	1910, Dec. 14	800 00	Resigned Jan. 31, 1915.
	J. J. Murphy	Chief Clerk	1872 May 1	2,300 00	
	W. C. Cain	Clerk of Free Grants	1903, Mar. 6	1,750 00	
	W. R. Ledger	Clerk	1894, Feb. 5	1,450 00	
	Selby Draper	do	1903, Jan. 1	1,350 00	
	S. A. Platt	do	1907, Mar. 13	1,100 00	
	F. Lucas	do	1909, Mar. 24	1,100 00	
	F. Samuels	do	1909, Mar. 24	925 00	
	W. B. Baines	do	1912, Oct. 5	950 00	
	A. G. Hall	do	1915, May 4	650 00	
	May Bengough	Stenographer	1896, Oct. 23	750 00	
	Jean C. Oram	do	1907, Jan. 16	725 00	
	Nan MacQueen	do	1909, Mar. 24	725 00	
	H. E. Johnston	Chief Clerk	1907, Mar. 13	1,600 00	
	E. F. O'Neil	Stenographer	1904, Nov. 9	725 00	
	G. B. Kirkpatrick	Director of Surveys	1866, Jan. 30	2,700 00	
	L. V. Rorke	Surveyor and Draughtsman	1909, May 1	2,600 00	
	Jas. Hutcheon	Asst. Surveyor and Draughtsman	1913, May 20	2,150 00	
	W. F. Lewis	Clerk	1872, May 5	1,400 00	
	D. G. Boyd	Draughtsman	1897, Sept. 27	1,650 00	
	E. M. Jarvis	Clerk	1904, Oct. 19	1,400 00	
	J. B. Proctor	do	1897, Jan. 15	1,200 00	
	H. Treeby	Draughtsman	1904, Jan. 13	1,250 00	

Sales and Free Grants.....

Military Grants {

Surveys.....

John Work	do	1911, Mar. 3	1,250 00
	F. E. Blanchet	1907, Mar. 13	1,100 00
	A. Leaman	1909, Mar. 24	1,100 00
	do	1912, Oct. 5	1,000 00
	B. Rushford	1904, Nov. 23	725 00
	H. M. Kirkland	1909, Mar. 24	725 00
	E. G. Halliday	1911, Mar. 3	625 00
	E. C. Armer	1911, Mar. 3	625 00
	B. Benson	1911, Mar. 3	625 00
	C. O'Connor	1911, Mar. 3	625 00
Patents	Chief Clerk	1890, May 22	2,050 00
	C. S. Jones	1900, Apr. 9	1,450 00
	C. E. Burns	1902, Apr. 13	1,350 00
	W. S. Sutherland	1904, Jan. 15	1,250 00
	W. Carrell	1894, May 8	1,000 00
	A. E. Robillard	1909, Mar. 24	1,250 00
	do		
	do		
	do		
	do		
Woods and Forests	Chief Clerk	1867, Dec. 1	2,300 00
	J. A. G. Crozier	1898, Aug. 1	1,750 00
	J. B. Cook	1900, Apr. 9	1,500 00
	H. Gillard	1903, Mar. 6	1,350 00
	F. J. Niven	1904, Jan. 13	1,300 00
	W. F. Trivett	1904, Nov. 23	1,200 00
	R. H. Hodgson	1907, Mar. 13	1,400 00
	J. Houser	1909, Mar. 24	1,000 00
	A. H. O'Neil	1909, Mar. 24	1,000 00
	G. W. Harris	1911, Nov. 1	950 00
Accounts	N. L. Rogers	1910, June 1	900 00
	S. D. Meeking	1913, Apr. 30	850 00
	A. P. Saunders	1909, Sept. 1	775 00
	M. E. Bliss	1915, Mar. 23	700 00
	C. Rowland	1915, Mar. 1	600 00
	W. A. Fleming	1915, Mar. 1	600 00
	do		
	do		
	do		
	do		
Accounts	Accountant	1861, Apr. 15	2,550 00
	D. G. Ross	1904, Jan. 13	1,550 00
	H. M. Lount	1907, Mar. 13	1,150 00
	C. J. Clarke	1913, Apr. 30	850 00
	R. Gordon	1911, Mar. 3	700 00
	C. Bowland	1880, Mar. 1	1,600 00
	F. Yeigh	1907, Mar. 13	1,250 00
	C. Dies		
	Clerk		
	do		

Appendix No. 1.—*Concluded.*

Return of Officers and Clerks of the Department of Lands, Forests and Mines for the year ending October 31st, 1915.

Branch.	Name.	Designation.	When appointed.	Salary per annum.	Remarks.
Forestry.....	E. J. Zavitz	Director	1912, Nov. 7	\$ 2,600 00	
	F. S. Newman	Assistant Director	1913, Sept. 22	1,600 00	
	J. Bald	Stenographer	1914, Oct. 28	600 00	
Bureau of Mines.....	T. W. Gibson	Deputy Minister	1891, June 19	4,000 00	
	R. D. Fisher	Secretary	1907, Mar. 13	1,350 00	
	W. Lemoine	Clerk	1908, Apr. 8	1,150 00	
	D. H. Barr	do	1907, Mar. 13	1,150 00	
	W. A. Burritt	do	1908, Apr. 8	1,150 00	
	Anne Moffatt	do	1901, Mar. 1	1,100 00	
	A. G. Scovell	do	1909, Mar. 24	1,050 00	
	C. W. St. John	do	1910, Apr. 14	1,000 00	
	F. L. Godson	do	1915, June 18	900 00	
	Ethel Craig	Clerk and Stenographer	1906, May 16	800 00	
	F. McDougall	do	1907, Mar. 13	725 00	
	J. L. McNaughton	Stenographer	1909, Mar. 24	750 00	
	H. W. Batchelor	do	1911, Dec. 19	650 00	
	H. Brophy	Messenger	1898, Oct. 1	925 00	

D GEO. ROSS,
Accountant.ALBERT GRIGG,
Deputy Minister of Lands and Forests.

Appendix No. 2.

List of Land Agents and Homestead Inspectors for the year ending October 31st, 1914.

Name.	Post office address	District or County.	Date of appointment.	Salary per annum.	Remarks.
Anderson, T. V.	Hearst	Part District of Algoma	1913, May 9	\$ 500 00	
Arthurs, E.	Espanola Mills	do	1915, May 7	200 00	
Baker, R. H.	Minden	Part of Victoria	1907, Oct. 1	350 00	
Barr, J.	Fort Frances	Homestead Inspector	1906, Nov. 23	1,200 00	
Bastien, J. A.	Chelmsford	do	1913, May 2	600 00	
Bolger, J. W.	New Liskeard	Lake Temiskaming, District of Nipissing ..	1913, July 17	700 00	
Both, C.	Denbigh	Part of Frontenac and Addington	1905, Oct. 20	200 00	
Brown, J. B.	Bracebridge	Homestead Inspector and Crown Land Agt.	1905, July 28	1,000 00	
Byers, R. J.	Massey	Part District of Sudbury	1906, July 3	500 00	
Buchanan, T.	Thessalon	do	1901, Nov. 30	300 00	Resigned April 21, 1915.
Burrows, W. A.	Port Arthur	do	1912, Jan. 30	700 00	
Burnes, C. W.	Sundridge	Homestead Inspector	1905, Nov. 15	900 00	
Cameron, W.	Stratton Station	Part District of Rainy River	1911, April 27	500 00	
Campbell, I. M.	Parry Sound	do	1914, Nov. 12	500 00	
Cragg, W. V.	New Liskeard	Homestead Inspector	1913, Mar. 27	1,200 00	
Dean, T.	Sault Ste. Marie	do	1908, July 29	600 00	
Dempsey, S. J.	Cochrane	Part District of Nipissing	1911, Feb. 9	600 00	
Dodds, T.	Thessalon	do	1915, May 4	300 00	
Douglas, W. J.	Greenview	do Hastings	1912, June 12	500 00	
Ellis, H. J.	Powassan	do District of Parry Sound	1909, May 21	500 00	
Freeborn, Dr. J. S.	Magnetawan	do	1905, Nov. 10	500 00	
Gibson, J. E.	Dryden	District of Rainy River	1914, Nov. 20	500 00	
Ginn, F. E.	Matheson	do County of Peterboro	1912, Mar. 20	600 00	
Hales, W.	Apsley	District of Rainy River	1911, July 20	250 00	
Hayes, G.	Dryden	Part Township of Alberta and part District	1914, June 1	500 00	Resigned Nov. 6, 1914.
Hollands, C. J.	Fort Frances	of Rainy River			
Hughes, T.	Murillo	Homestead Inspector	1892, Oct. 12	300 00	
Jenkin, W.	Emsdale	Part of District of Parry Sound	1908, July 20	800 00	
Langlois, E.	Warren	do	1908, July 29	500 00	
Lemieux, J. A.	Bleazard Valley	do	1911, April 4	500 00	
		do	1908, June 26	400 00	

Appendix No. 2.—*Concluded.*List of Land Agents and Homestead Inspectors for the year ending October 31st, 1914.—*Concluded.*

Name.	Post office address	District or county.	Date of appointment.	Salary per annum.	Remarks.
MacLennan, J. K.	Sudbury	Part of District of Sudbury	1905, July 8	\$ 500 00	
McFayden, A.	Emo	do do Rainy River	1905, Sept. 8	500 00	
Noble, E.	Sault Ste. Marie.	do do Algoma	1913, Feb. 1	300 00	
Parsons, W. J.	North Bay	do do Nipissing	1908, April 8	500 00	
Phillips, J. A.	Sturgeon Falls.	do do do	1907, Sept. 13	500 00	
Prince, A.	Wilno	do of Renfrew	1905, July 12	500 00	
Quenneville, I.	Sturgeon Falls.	Homestead Inspector	1906, May 7	600 00	
Small, R.	Mattiawa	Part District of Nipissing	1910, June 30	500 00	
Smith, D.	Cochrane	Homestead Inspector	1912, April 16	1,000 00	
Spry, W. L.	Kenora	Part District of Rainy River	1909, Sept. 21	400 00	Also Mining Recorder.
Watson, T. P.	Englehart	Homestead Inspector	1905, May 10	1,000 00	
Watt, F.	Pembroke	Part Renfrew	1913, May 28	300 00	
Wilson, J.	Kinmount	Part of Peterboro	1905, May 31	175 00	
Wilson, A. N.	Kinmount.	do do	1915, June 1	175 00	Died May 6, 1915.
Whybourne, W. E.	Marksville	do of St. Joseph Island	1905, April 7	250 00	
Woolings, J.	Englehart	do District of Nipissing	1908, June 30	600 00	
Wigle, R. G.	Dryden	Homestead Inspector	1914, May 27	1,000 00	

ALBERT GRIGG,
Deputy Minister of Lands and Forests.

D. GEO. ROSS,
Accountant.

Appendix No. 3.

Statement of Lands Sold and Leased. Amount of Sales and Leases and Amount of Collections for the year ending October 31st, 1915.

Service.	Acres sold and leased.	Amount of sales and leases.	Collection on sales and leases.
<i>Lands Sold:</i>		\$ c.	\$ c.
Agricultural and Townsites.....	146,307.19	82,908.28	51,294.40
Mining	17,277.85	45,439.10	46,584.88
Clergy.....			99.20
Common School	20.30	170.00	3,987.37
Grammar School			1,003.29
University	5,229.50	2,614.75	1,360.57
<i>Lands Leased:</i>			
Mining	2,092.04	2,092.04	13,841.58
Crown	3,272.45	1,209.21	39,637.79
	174,199.33	\$134,433.38	\$157,809.08

D. GEO. ROSS,
Accountant.

ALBERT GRIGG,
Deputy Minister of Lands and Forests.

Appendix No. 4.

Statement of Revenue of the Department of Lands, Forests and Mines for the year ending October 31st, 1915.

Service.	\$ c.	\$ c.	\$ c.
LAND COLLECTIONS.			
<i>Crown Lands:</i>			
Agricultural.....	49,364 38		
Townsites	1,930 02		
		51,294 40	
Mining.....		46,584 88	
		97,879 28	
Clergy Lands	99 20		
Common School Lands	3,987 37		
Grammar School Lands	1,003 29		
University Lands	1,360 57		
		6,450 43	
<i>Rent:</i>			
Mining Leases	13,841 58		
Crown Leases	39,637 79		
		53,479 37	
Miners' Licenses	27,850 73		
Permits	481 00		
Recording Fees	23,976 97		
		52,308 70	
Royalties.....		52,860 60	
<i>Supplementary Revenue:</i>			
Acreage Tax	10,716 24		
Profit Tax	139,978 62		
Gas Tax	26,406 67		
		177,101 53	
			440,079 91
WOODS AND FORESTS.			
Bonus.....		507,241 43	
Timber Dues		928,351 38	
Ground Rent.....		89,952 01	
Transfer Fees.....		2,560 00	
			1,528,104 82
Provincial Assay Fees.....	289 15		
Casual Fees	590 56		
Cullers' Fees	80 00		
		959 71	
Algonquin Provincial Park	2,166 84		
Quetico Provincial Park	536 19		
Forest Reserves.....	1,259 50		
		3,962 53	
			4,922 24
REFUNDS.			
Fire Ranging		34,902 98	
Wood Ranging		11,863 92	
Algonquin Provincial Park		1,721 52	
Agents' Salaries		343 00	
Mines and Mining		47 40	
Salaries and Expenses.....		2 50	
Contingencies		85	
			48,882 17
			\$2,021,989 14

D. GEO. ROSS,
Accountant.

ALBERT GRIGG,
Deputy Minister of Lands and Forests.

Appendix No. 5.

Statement of Receipts of the Department of Lands, Forests and Mines for the year ending October 31st, 1915, which are considered as Special Funds.

Service.	\$ c.	\$ c.
<i>Clergy Lands.</i>		
Principal.....	60 75	99 20
Interest.....	38 45	
<i>Common School Lands.</i>		
Principal.....	2,121 75	3,987 37
Interest.....	1,865 62	
<i>Grammar School Lands.</i>		
Principal.....	627 15	1,003 29
Interest.....	376 14	
<i>University Lands.</i>		
Principal.....	1,204 13	1,360 57
Interest.....	156 44	
		<u>\$6,450 43</u>

D. GEO. ROSS,
Accountant.

ALBERT GRIGG,
Deputy Minister of Lands and Forests.

Appendix No. 6.

Statement of Disbursements of the Department of Lands, Forests and Mines for the year ending October 31st, 1915.

Service.	\$ c.	\$ c.	\$ c.
AGENTS' SALARIES AND DISBURSEMENTS.			
<i>Land, \$16,855.71.</i>			
Anderson, T. V.....	500 00		
Disbursements.....	31 00		
		531 00	
Arthurs, E.		83 86	
Baker, R. H.	350 00		
Disbursements.....	5 39		
		355 39	
Bolger, J. W.....	700 00		
Disbursements.....	87 95		
		787 95	
Both, C.		200 00	
Brown, J. B.	1,000 00		
Disbursements.....	156 95		
		1,156 95	
Buchanan, T.		150 00	
Burrows, W. A.	700 00		
Disbursements.....	91 60		
		791 60	
Byers, R. J.....	500 00		
Disbursements.....	6 05		
		506 05	
Cameron, W.	500 00		
Disbursements.....	39 60		
		539 60	
Campbell, Miss I. M.	500 00		
Disbursements.....	13 00		
		513 00	
Dempsay, S. J.	600 00		
Disbursements.....	52 20		
		652 20	
Dodds, T.		148 80	
Douglas, W. J.	500 00		
Disbursements.....	12 50		
		512 50	
Ellis, H. J.		500 00	
Freeborn, Dr. J. S.	500 00		
Disbursements.....	4 70		
		504 70	
Gibson, J. E.	453 27		
Disbursements.....	44 30		
		497 57	
Ginn, F. E.	600 00		
Disbursements.....	277 64		
		877 64	
Hales, W.		250 00	
Hollands, C. J.		300 00	
Jenkin, W.	500 00		
Disbursements.....	10 68		
		510 68	

Appendix No. 6.—Continued.

Service.	\$ c.	\$ c.	\$ c.
AGENTS' SALARIES AND DISBURSEMENTS.—Continued.			
<i>Land.—Concluded.</i>			
Langlois, E.	500 00		
Disbursements.....	8 00		
		508 00	
Lemieux, J. A.		400 00	
McFayden, A.	500 00		
Disbursements.....	82 20		
		582 20	
MacLennan, J. K.		500 00	
Noble, E.		300 00	
Parsons, W. J.	500 00		
Disbursements.....	28 25		
		528 25	
Phillon, J. A.	500 00		
Disbursements.....	15 45		
		515 45	
Prince, A.	500 00		
Disbursements.....	15 50		
		515 50	
Small, R.	500 00		
Disbursements.....	25 00		
		525 00	
Spry, W. L.	400 00		
Disbursements.....	322 25		
		722 25	
Watt, F.		300 00	
Whybourne, W. E.	250 00		
Disbursements.....	3 30		
		253 30	
Wilson, J.	87 50		
Disbursements.....	8 50		
		96 00	
Wilson, A. N.	85 13		
Disbursements.....	3 64		
		88 77	
Woollings, J.	600 00		
Disbursements.....	51 50		
		651 50	
<i>Homestead Inspectors, \$12,854.58.</i>			
Barr, J.	1,200 00		
Disbursements.....	789 05		
		1,989 05	
Bastien, J.	600 00		
Disbursements.....	254 56		
		854 56	
Burnes, C. W.	900 00		
Disbursements.....	546 57		
		1,446 57	
Cragg, W. V.	1,200 00		
Disbursements.....	320 52		
		1,520 52	

Appendix No. 6.—Continued.

Service.	\$ c.	\$ c.	\$ c.
AGENTS' SALARIES AND DISBURSEMENTS.—Continued			
<i>Homestead Inspectors.—Concluded.</i>			
Dean, T.	600 00		
Disbursements.....	15 85		
		615 85	
Hughes, T.	700 00		
Disbursements.....	644 90		
		1,344 90	
Quenneville, I.	600 00		
Disbursements.....	233 90		
		833 90	
Smith, D.	1,000 00		
Disbursements.....	264 00		
		1,264 00	
Watson, T. P.	1,000 00		
Disbursements.....	409 78		
		1,409 78	
Wigle, R. G.	992 00		
Disbursements.....	583 45		
		1,575 45	
<i>Timber, \$29,892.74.</i>			
Bremner, G.	1,300 00		
Disbursements.....	351 95		
		1,651 95	
Christie, W. P.....	1,600 00		
Disbursements.....	258 29		
		1,858 29	
Hawkins, S. J.	1,500 00		
Disbursements.....	400 30		
		1,900 30	
Henderson, C.	1,800 00		
Webster, W. A., Assistant	1,600 00		
Disbursements.....	590 96		
		3,990 96	
Johnson, S. M.	1,600 00		
Disbursements.....	187 25		
		1,787 25	
MacDonald, S. C.	1,600 00		
Disbursements.....	259 15		
		1,859 15	
Margach, W.	1,600 00		
Legris, J., Assistant	1,300 00		
Disbursements.....	1,467 33		
		4,367 33	
Maughan, J.	1,500 00		
Disbursements.....	692 37		
		2,192 37	
McDonald, H.	1,500 00		
Disbursements.....	332 53		
		1,832 53	
McDougall, J. T.....	1,600 00		
Disbursements.....	444 77		
		2,044 77	
Oliver, J. A.	1,500 00		
Disbursements	1,022 59		
		2,522 59	
Stevenson, A.	1,500 00		
Disbursements	544 80		
		2,044 80	
Watts, G.	1,500 00		
Disbursements	340 45		
		1,840 45	

Appendix No. 6.—Continued.

Service.	\$ c.	\$ c.	\$ c.
AGENTS' SALARIES AND DISBURSEMENTS.—Concluded			
<i>Miscellaneous, \$2,392.10.</i>			
Bilton, G., Caretaker Islands in North and South Crosby		25 00	
Edye, W. K., Inspection Timber North of Wabigoon Township		4 20	
Guthrie, W., Caretaker Islands in Devil's Lake		25 00	
Jamieson, W., Caretaker Islands in Dog and Laboria Lakes		50 00	
Johnston, T., Inspection Timber North of Wabigoon Township		34 02	
Leetham, E. S., Inspection of Lemieux and Bell Islands		50 00	
McArthur, T. A., Inspector of Agencies	600 00		
Disbursements	612 95		
		1,212 95	
McDonald, T., Inspection Timber North of Wabigoon Township		17 39	
Nicholas, D. G., Inspection Timber North of Wabigoon Township		3 35	
Pronger, R. H., Acting Crown Lands Agent	118 34		
Disbursements	17 75		
		136 09	
Stewart, J. A., Inspection of Townships Shackleton, Fauquier and Newmarket	170 00		
Disbursements	657 10		
		827 10	
Tapping, T., Disbursements <i>re</i> Inspection of Township Miller		7 00	
			61,995 13
OTTAWA AGENCY.			
Darby, E. J., Agent		1,500 00	
Larose, S. C., Clerk		1,000 00	
Rent	700 00		
Disbursements	62 15		
		762 15	
			3,262 15
WOOD RANGING.			
Allen, R. A.		765 00	
Ansley, W. E.		805 00	
Arnill, Wm.		1,060 00	
Atcheson, Ira M.		605 00	
Bailey, S. J.	1,076 50		
Disbursements	22 59		
		1,099 09	
Barrett, Thos.		905 00	
Bates, R.		364 00	
Balsdon, G.		156 00	
Bedard, I.		20 25	
Belanger, T.		20 25	
Bliss, L. E.	510 00		
Disbursements	29 90		
		539 90	
Brooks, W. J.		345 00	
Buisson, Wm.		920 00	
Callahan, T.		580 00	
Carried forward			65,257 28

Appendix No. 6.—Continued.

Service.	\$ c.	\$ c.	\$ c.
<i>Brought forward</i>			65,257 28
<i>WOOD RANGING.—Continued.</i>			
Canon, Joe		67 50	
Carlson, C.		240 50	
Castonguay, A. C.		825 00	
Carter, G.		328 00	
Chenier, D. A.	1,300 00		
Clairmont, El.		24 00	
Comer, B. F.		372 00	
Corrigan, R. T.		865 00	
Coyne, Phin.		625 00	
Darling, J. M.		150 00	
Dennie, F. J.		127 50	
Didier, H.	1,375 00		
Dougherty, J. M.		24 00	
Doxsee, J. E.		90 00	
Duval, C. A.		720 00	
Edye, W. K.		8 00	
Elliott, Wm.		528 00	
Fairbairn, N. H.		572 00	
Ferguson, E. A.	1,180 00		
Fisher, Geo.		775 00	
Fraser, W. A.		512 00	
Fraser, D.		895 00	
Fraser, T.		120 00	
Gamey, W. H.		655 00	
Gauthier, O.		169 00	
Gilligan, El.	1,120 00		
Gordon, J. B.		640 00	
Hagan, E. G.		90 00	
Hartley, C.	1,035 00		
Hawkins, S. J.		40 42	
Henderson, Chas. Disbursements..		274 25	
Henderson, A.		635 00	
Hey, Ben		244 00	
Hogarth, J. R.		765 00	
Huckson, A. H. Disbursements..		3 75	
Hurdman, W. H.		750 00	
Hutton, J.	1,095 00		
Irving, E.		112 00	
Jean, A.		150 75	
Johnston, T.		296 00	
Jones, W.		496 00	
Kelly, J.		177 50	
Kernahan, G.		312 00	
Leblanc, E.		507 75	
Leblanc, O.		267 00	
Lee, J. B.		760 00	
Linklater, Geo.		33 00	
Long, H. E.	900 00		
Disbursements	36 90		
		936 90	
Macdonell, R. D.		710 00	
MacGillivray, G.		237 00	
Manice, Wm.		1,035 00	
Margach, Wm. Disbursements..		497 68	
Margach, J. A.	730 00		
Disbursements	112 25		
		842 25	
Matheson, O. R.		485 00	
Maughan, J. Disbursements..		17 95	
<i>Carried forward</i>			65,257 28

Appendix No. 6.—Continued.

Service.	\$ c.	\$ c.	\$ c.
<i>Brought forward</i>			65,257 28
<i>WOOD RANGING.—Continued.</i>			
Menzies, A.		1,560 00	
Miller, Wishart		153 75	
Milway, J. H.	755 00		
Disbursements	13 25		
		768 25	
Minher, R.		20 25	
Molyneaux, Geo.		635 00	
Mooney, L.	1,929 00		
Disbursements	324 46		
		2,253 46	
Moran, A.		1,375 00	
Morel, H.		500 00	
Murray, Wm.		1,375 00	
McAuley, Wm.		835 00	
McCaw, J. G.		1,555 00	
McCaw, Joe		260 00	
McDonald, T.		568 00	
McDonald, J. D.		1,425 00	
McDonald, H.	Disbursements ..	41 55	
McDougall, J. T.	Disbursements ..	153 01	
McGillivray, D. D.		36 00	
McGregor, C. F.		180 00	
McIntyre, Robt.		277 50	
McInnis, A. D.		805 00	
McLaughlin, John		544 00	
McLean, John		1,550 00	
McLeod, Wm.		67 50	
McNabb, A.		860 00	
McPherson, J. S.		1,430 00	
McRae, D. A.		692 00	
Nault, Jas.		348 00	
Nibblet, Jas.		335 00	
Oliver, J. A.	Disbursements ..	78 70	
Paul, C. A.	Disbursements ..	421 73	
Pigott, J. A.		575 00	
Pritchard, F.		7 00	
Reid, J. P.		1,220 00	
Ridley, Robert		1,350 00	
Ritchie, A. W.		500 00	
Ritchie, J. F.		605 00	
Robertson, J. D.		488 00	
Ross, S.		460 00	
Rusk, O.		755 00	
Ryan, A. M.		78 00	
Sanderson, D.		840 00	
Share, Jas.		1,040 00	
Shaw, Alf.		935 00	
Sheppard, S.		110 50	
Simpson, Wm.		1,260 00	
Smith, V.		7 00	
Spence, Dalton		1,020 00	
Stein, P.		536 15	
Taylor, L. D.		43 50	
Thompson, W. B.	1,035 75		
Disbursements	6 40		
		1,042 15	
Tichborn, A.		72 00	
Urquhart, A.		950 00	
<i>Carried forward</i>			65,257 28

Appendix No. 6.—Continued.

Service.	\$	c.	\$	c.	\$	c.
Brought forward					65,257	28
WOOD RANGING.— <i>Concluded.</i>						
Vincent, H. T.	1,295	00				
Webster, W. A. Disbursements.	506	68				
Western, C.	745	00				
Whelan, P. J.	1,425	00				
White, A. T.	660	00				
Wilkins, G. N.	775	00				
Wilson, R.	488	00				
Wilson, David	1,520	00				
Windle, Jas.	241	50				
Wood, W. D.	755	00				
Wylie, D. M.	640	00				
Yuill, Thomas	1,370	00				
Young, R. J.	480	00				
					81,197	37
ESTIMATING FOREST RESERVES.						
Henderson, Chas. Disbursements.					26	19
FIRE RANGING.						
Acheson, J. M.	327	50				
Acton, J.	17	00				
Adams, Alex.	337	50				
Allan, D.	324	50				
Allen, R. A.	915	00				
Allen, David	342	50				
Allen, Wm.	70	00				
Argue, D.	42	50				
Armstrong, E. L.	345	00				
Armstrong, W. H.	347	50				
Armstrong, F. C.	340	00				
Ashby, L.	330	00				
Bailey, Henry	382	50				
Bartlett, G. W. Disbursements.	199	80				
Bartlett, H.	33	65				
Bateson, V.	315	00				
Beaumont, A.	345	00				
Bedal, W.	337	50				
Belcher, E. A.	337	50				
Berrige, G.	290	00				
Bliss, L. E. Disbursements.	163	31				
Boice, R.	16	00				
Boivin, J.	340	00				
Bookhout, H.	322	50				
Bonter, S.	337	50				
Bottrell, D.	317	50				
Bouchard, A.	42	50				
Boyle, G. B.	315	00				
Bowland, J. J.	488	00				
Disbursements	69	45				
					557	45
Brander, G. L.	347	50				
Briggs, A.	272	50				
Brown, T. E.	345	00				
Brozeau, O.	332	50				
Brum, A.	840	00				
Bulmer, A.	310	00				
Carried forward					146,480	84

Appendix No. 6.—Continued.

Service.	\$	c.	\$	c.	\$	c.
<i>Brought forward</i>					146,480	84
<i>FIRE RANGING.—Continued.</i>						
Busch, H.			327	25		
Butler, W. J.			307	50		
Burns, R.			340	00		
Campbell, Walter			292	50		
Campbell, W.			312	50		
Campbell, D.			360	00		
Campbell, J. S.			290	00		
Campbell, Alex.			310	00		
Carris, E.			21	54		
Carmichael, W. A.			312	50		
Carnochan, G.			310	00		
Case, G.			310	00		
Cavanagh, S.			322	50		
Chaloner, C.			280	50		
Chaffey, Wm.			352	50		
Chambers, T.			277	50		
Chambers, T.			345	00		
Chapman, Wm.			322	50		
Chappis, J.			312	50		
Chittick, W. J.			332	50		
Christie, W. P.			436	28		
Clark, H.			330	00		
Clarke, W. R.			840	00		
Clayton, B.			20	92		
Cluff, R. A.			330	00		
Code, Jas.			315	00		
Coghlan, H.			315	00		
Cole, A.			337	50		
Connell, W.			410	00		
Coyne, J. E.			24	00		
Coyne, Phin			810	00		
Disbursements			176	09		
Crawford, J.			986	09		
Cummins, T. A.			320	00		
Curry, P. W.			345	00		
Davidson, Ira			355	00		
Davison, J.			330	00		
Deacon, A.			335	00		
DeLaronde, D.			30	00		
Depencier, G.			125	00		
Derouard, M.			317	50		
Didier, L. P.			302	50		
Dion, Geo.			920	00		
Donaldson, C.			330	00		
Duff, R. A.			340	00		
Dukes, V.			35	00		
Durnin, Chas.			315	00		
Ebert, J.			604	00		
Eilber, Geo.			340	00		
Elliott, J.			337	50		
Ellis, E. C.			310	00		
English, M.			345	00		
English, Morelle			337	50		
Enright, T.			316	25		
Fairbairn, N. H.			317	50		
Favereau, Geo.			850	00		
			335	00		
<i>Carried forward</i>					146,480	84

Appendix No. 6.—Continued.

Service.	\$	c.	\$	c.	\$	c.
Brought forward					146,480	84
FIRE RANGING.—Continued.						
Ferguson, Thos.			237	50		
Ferguson, D.			322	50		
Fisher, Geo.			840	00		
Fitzback, J.			22	50		
Fitzpatrick, P.			420	00		
Flynn, M.			337	50		
Flynn, W. J.			307	50		
Foster, Wm.			322	50		
Fraser, A.			50	00		
Fraser, Alex.			357	50		
Fraser, W. A.			340	00		
Fullerton, E.			75	00		
Furry, C.			337	50		
Gagne, F.	775	00				
Disbursements	184	10				
Gagne, J.			959	10		
Gagnon, P.			327	50		
Gale, W. J.			312	50		
Gale, E. J.			322	50		
Gault, R.			307	50		
Gauthier, Theo.			335	50		
Gemmill, John			337	50		
Disbursements	488	00				
	174	90				
Giguire, A.			662	90		
Gillanders, G. K.			45	00		
Godfrey, W.			355	00		
Hackett, W.			297	50		
Hagerman, G. H.			325	00		
Hall, T.			310	00		
Hand, T.			315	00		
Hardy, F.			488	00		
Hartley, K.			230	00		
Harvey, C. B. S.			320	00		
Henderson, Chas.			300	00		
Henderson, J.			381	69		
Hicks, A.			340	00		
Higgins, R.			18	46		
Hogan, J. C.			300	00		
Holmes, J. H.			345	00		
Holt, J.			337	50		
Horigan, E. J.			332	50		
Hough, J. A.			330	00		
Houghton, C. L.			322	50		
Huckson, A. H.			315	00		
Disbursements	1,600	00				
	180	49				
Hudgins, W.			1,780	49		
Hyde, James			345	00		
Irish, Wm.			335	00		
Irving, E.			372	50		
Irwin, T. N.			325	00		
Jamieson, K.			315	00		
Jenkins, S.			345	00		
Disbursements	642	00				
	214	00				
Jerritt, E. L.			856	00		
			345	00		
Carried forward					146,480	84

Appendix No. 8.—Continued.

Service.	\$	c.	\$	c.	\$	c.
<i>Brought forward</i>					146,480	84
FIRE RANGING.—Continued.						
Johnston, W.			422	50		
Johnson, S. A.			324	50		
Jones, R.			327	50		
Jones, E.			310	00		
Keely, C. A.			337	50		
Keenahan, Matt.			337	50		
Kells, L.			327	00		
Kelly, T.			330	00		
Kemp, H.			235	00		
Kerr, Alex.			300	00		
King's Printer	Supplies..		652	63		
Kinney, W.			368	50		
Laberge, Chas.			327	50		
Lafrennesse, A.			302	50		
Lee, E. J.			340	00		
Lee, J. B.		740	00			
Disbursements		216	63			
				956	63	
Linklater, W.			422	50		
Lofquist, M.			335	00		
Long, H. E.		765	00			
Disbursements		25	88			
				790	88	
Lonktree, J.			340	00		
Loy, R.			302	50		
MacDonald, S. C.	Disbursements..		34	28		
MacDonald, M.			317	50		
Macdonell, R. D.			840	00		
MacNeill, E. R.			337	50		
MacGillivray, G.			305	00		
Maidens, W.			315	00		
Margach, Wm.	Disbursements..		874	69		
Margach, J. A.			255	75		
Mathers, J. A.			337	50		
Maxwell, A. D.			315	00		
May, H.		750	00			
Disbursements		95	63			
				845	63	
Merritt, J.			20	31		
Metcalf, T.			297	50		
Milway, J. H.			840	00		
Mitchell, F.			340	00		
Molyneaux, G.		312	50			
Disbursements		156	25			
				468	75	
Monahan, P.			420	00		
Montrue, G. C.			315	00		
Morand, L.			335	00		
Moody, C. D.			322	50		
Moore, C.			352	50		
Moorehead, W. C.			315	00		
Morin, J.			335	00		
Morrison, M. C.			315	00		
Moyles, J.			14	00		
McAulay, W. D.			444	00		
McCart, H. M.			330	00		
McCullough, D. J.			337	50		
McDonald, A.			315	00		
<i>Carried forward</i>					146,480	84
3 L.M.						

Appendix No. 6.—Continued.

Service.	\$	c.	\$	c.	\$	c.
<i>Brought forward</i>					146,480	84
<i>FIRE RANGING.—Continued.</i>						
McGuire, R. B.			215	00		
McKechnie, J.			82	50		
McKinnon, H.			330	00		
McLean, A.			197	50		
McLennon, D.			21	00		
McMillan, J.			245	00		
McMillan, D. H.			100	00		
McNeely, M.			317	50		
McQuinn, W. J.			315	00		
McRae, D. A.			459	00		
Nabigon, E.			312	50		
Nelson, N.			410	00		
Newburn, Wm.			488	00		
Newhouse, A.			195	00		
Nidderly, A. E.			257	50		
Nugent, Wm.			332	50		
Oakes, James			315	00		
Ogle, F.			324	50		
Oliver, J. A.	Disbursements		416	97		
Onderkirk, J.			207	50		
Ouellette, F.			285	00		
Patterson, Wm.			352	50		
Passmore, J.			307	50		
Pearson, W.			325	00		
Perrault, E.			82	50		
Peterborough Lumber Co.			1,000	00		
Pringle, A.			315	00		
Pitt, W. W.			322	50		
Piper, C. R.			315	00		
Plouffe, W.			312	50		
Porter, B.			28	26		
Predhomme, A.			240	00		
Prestley, J.			335	00		
Pritchard, F.			493	50		
Prophet, E.			352	50		
Rabbitts, Max			840	00		
Racey, M. J.			315	00		
Read, C. F.			377	50		
Redden, M. B.			337	50		
Revells, L. O.			748	00		
Richardson, J.			315	00		
Richardson, G. B.			305	00		
Riddell, W. R.			332	50		
Rivet, Z.			330	00		
Rivet, A.			350	00		
Robertson, J.			26	92		
Robinson, J. B.			322	50		
Rochfort, A.			337	50		
Roe, N.			352	50		
Rowe, James			342	50		
Ross, H. L.			315	00		
Roy, C.			23	00		
Rusk, O. W.		755	00			
Disbursements		2,948	65			
				3,703	65	
Ryan, T.				82	50	
Sanderson, S.				422	50	
<i>Carried forward</i>					146,480	84

Appendix No. 6.—Continued.

Service.	\$ c.	\$ c.	\$ c.
<i>Brought forward</i>			146,480 84
FIRE RANGING.—Continued.			
Saunders, H. A.		345 00	
Sauve, J.		330 00	
Savard, A.		312 50	
Schaffner, J.		75 00	
Schenk, N.		337 50	
Scott, Robt.		488 00	
Scott, A. A.		295 00	
Shannette, L.		315 00	
Sheriden, W. E.		330 00	
Slack, P. B.		315 00	
Sloss, R. W.		300 00	
Small, M. A.		340 00	
Smith, V.		525 00	
Smith, G. J.		327 50	
Smith, E. J.		317 50	
Smith, J.		30 70	
Spence, A.		324 50	
Spence, D.		280 00	
Stairs, C. G.		315 00	
Stephens, W. H.		315 00	
Stevens, W. J.		315 00	
Stevenson, J. A.		257 50	
Stewart, J. A.	765 00		
Disbursements	401 18		
		1,166 18	
Stewart, C.		305 00	
Stilwell, J.		352 50	
Swanson, G.		324 50	
Sudds, D.		295 00	
Tang, J.		337 50	
Tate, J.		337 50	
Tichborn, A.		275 00	
Thompson, Ahern Co.		56 75	
Thompson, M. A.		337 50	
Thompson, E.	312 50		
Disbursements	156 25		
		468 75	
Thompson, R. G.		315 00	
Thompson, F. H.		270 00	
Thomas, Hooper		312 50	
Toomer, S.		312 50	
Torrance, C. W.		292 50	
Trembley, E.		330 00	
Tripp, E. C.		345 00	
Tucker, D.		300 00	
Twiss, E. O.		292 50	
Urquhart, A.		488 00	
Valois, P.		330 00	
Vigars, A.		292 50	
Wagner, F.		28 26	
Walker, G.		315 00	
Watson, R.		327 50	
Watson, M.		41 54	
Watts, Geo.	Disbursements	113 08	
Watts, H. W.		297 50	
Watt, M. A.		315 00	
Wattie, W.		17 00	
Welsh, James		340 00	
<i>Carried forward</i>			146,480 84

Appendix No. 6.—Continued.

Service.	\$	c.	\$	c.	\$	c.
<i>Brought forward</i>					146,480	84
<i>FIRE RANGING.—Concluded.</i>						
Weir, G. A.			287	50		
West, W.			340	00		
Western, C.			459	00		
White, T. A.			312	50		
White, J. H.			760	00		
Wickens, H.			357	50		
Williams, J.			324	50		
Williams, H. B.			32	50		
Wilkins, G. N.			488	00		
Wilson, J. G.			315	00		
Windle, Jas.			920	00		
Wood, W. D.			411	00		
Woods, S.			337	50		
Wright, J. S.			350	00		
Wright, H. H.			310	00		
Zavitz, E. J. Disbursements ..			182	50		
					111,250	79
<i>FOREST RESERVES.</i>						
<i>Temagami Reserve, \$31,740.34.</i>						
Albright, E.			337	50		
Aldred, O.			195	00		
Allen, Geo.			135	00		
Angel, L. E.			307	50		
Aubee, T.			327	50		
Barrett, Thos.	765	00				
Disbursements ..	35	93				
			800	93		
Batten, B.			337	50		
Belanger, O.			287	50		
Benoit, E.			332	50		
Bickell, R. R.			335	00		
Black, Geo.			327	50		
Boivin, H.			335	00		
Bragg, F.			335	00		
Brown, J. R.			322	50		
Cantin, A.			135	00		
Card, N.			327	50		
Carleton, Geo.			335	00		
Cavill, A. H.			335	00		
Champagne, I.			332	50		
Chennette, Jas.			262	50		
Cross, W. E.			265	00		
Daley, T. B.			90	00		
Dial, A. C.			297	50		
Evans, W. H.			267	50		
Faeris, R.			1,065	50		
Fahey, V.			327	50		
Ferris, R. H. C.			322	50		
Frame, R. R.			327	50		
Grant, E.			190	00		
Grenier, Jas.			335	00		
Goodearle, W. E.			355	00		
Harrison, J. W.			912	50		
Hartt, I. B.			307	50		
Harper, B. H.			335	00		
Henrick, C.			357	50		
<i>Carried forward</i>					257,731	63

Appendix No. 6.—Continued.

Service.	\$ c.	\$ c.	\$ c.
<i>Brought forward</i>			257,731 63
<i>FOREST RESERVES.—Continued.</i>			
<i>Temagami Reserve.—Continued.</i>			
Herlihy, D.		347 50	
Hindson, C. E.	1,300 00		
Disbursements	499 67		
		1,799 67	
Hunter, B. J.		327 50	
Hughes, C.		197 50	
Jacob, S.		442 50	
Jermyn, C.		247 50	
Keenan, Jas.		335 00	
Kennedy, Wm.		40 00	
Kerrigan, A. C.		267 50	
Klotz, Thos.		335 00	
Lamarche, A.		912 50	
La Venture, G. E.		255 00	
Lawson, M.		265 00	
Leach, J.		335 00	
Leggo, C.		327 50	
Mansfield, J.		327 50	
Marshall, F. R.		167 50	
Minnes, W. G.		337 50	
Montrueil, L.		200 00	
Moorehouse, H. C.		335 00	
Morrison, R. R.		335 00	
Murphy, Peter		285 00	
McKnight, H.		187 50	
McLeish, Wm.		267 50	
McNiven, A. J.		190 00	
McNulty, T. P.		332 50	
McPherson, G. L.		327 50	
Nadon, P.		335 00	
Neil, Wm.		262 50	
Nicholas, H.		345 00	
Page, E. L.		267 50	
Papineau, Jos.		335 00	
Passmore, S.		337 50	
Petrant, Wm.		347 50	
Pirie, J. B.		165 00	
Porter, C. M.		230 00	
Poulin, Wm.		150 00	
Quesnel, F.		327 50	
Russell, W. G.		167 50	
Sage, P.		345 00	
Sanderson, J. E.		327 50	
Saville, T.		25 00	
Simpson, Jos.		265 00	
Simpson, Theo.		267 50	
Sparks, Wilmot		327 50	
Stewart, J.		267 50	
Turner, J.		335 00	
Vivaris, D.		912 50	
Vivaris, M.		335 00	
White, Jas.		332 50	
Whitmore, R.		442 50	
Wickett, H.		155 00	
Wilding, C. H.		327 50	
<i>Carried forward</i>			257,731 63

Appendix No. 6.—Continued.

Service.	\$ c.	\$ c.	\$ c.
<i>Brought forward</i>			257,731 63
<i>FOREST RESERVES.—Continued.</i>			
<i>Metagami Reserve.—Concluded.</i>			
Wilson, B.		337 50	
Wilson, W. F.		267 50	
Winder, A.		282 50	
Young, R. J.	780 00		
Disbursements	211 75		
		991 74	
<i>Metagami Reserve, \$7,148.78.</i>			
Ainslie, A.		342 50	
Blackwell, J. J.		345 00	
Boyd, D. M.		340 00	
Burden, Jas.		275 00	
Burden, John	830 00		
Disbursements	176 28		
		1,006 28	
Chatson, Fred.		160 00	
Fordham, H.		112 50	
Groulx, Jos.		342 50	
Guy, J. E.		340 00	
Mackey, E. L.		342 50	
McMennemy, Wm.		362 50	
McMennemy, Geo.		322 50	
Murray, G.		282 50	
Ogg, C. S.		302 50	
Platt, S.		345 00	
Porter, C. H.		145 00	
Poulin, N.		342 50	
Poulin, D.		342 50	
Souter, M. J.		302 50	
Stirrett, H. C.		342 50	
Stoddard, T.		340 00	
Veitch, L. T.		112 50	
<i>Mississaga Reserve.—\$15,768.57.</i>			
Acheson, L.		568 00	
Allen, Geo.		357 50	
Allen, H. M.		340 00	
Armstrong, A. H.		360 00	
Bourke, J.		327 50	
Boyd, Thos.		195 00	
Burden, Wm.		564 00	
Burden, J. H.		320 00	
Burns, T.		192 50	
Carpenter, R. J.		315 00	
Carson, J. E.		337 50	
Cornett, W. G.		335 00	
Dixon, A. J.		340 00	
Doherty, A. E.		572 00	
Doyle, Gus.		352 50	
Draper, Wm.		277 50	
Dupuis, T.		322 50	
Duval, C. A.	770 00		
Disbursements	279 57		
		1,049 57	
Ferrier, W. B.		360 00	
<i>Carried forward</i>			257,731 63

Appendix No. 6.—Continued.

Service.	\$	c.	\$	c.	\$	c.
<i>Brought forward</i>					257,731	63
<i>FOREST RESERVES.—Continued.</i>						
<i>Mississauga Reserve.—Concluded.</i>						
Flannagan, J. E.			337	50		
Gadke, F.			340	00		
Handley, J. S.			340	00		
Holdenby, C.			345	00		
Hotte, E. C.			322	50		
Johnston, J. W.			290	00		
Joyce, R. E.			360	00		
Lacomb, J. B.			320	00		
Luke, Sam.			325	00		
Malley, A. L.			360	00		
Miller, W. J.			352	50		
Moore, C. A.			340	00		
Morel, H.			312	50		
McAulay, Robt.			360	00		
McKendrick, H. G.			325	00		
McLaughlin, J.			320	00		
Preston, H. E.			297	50		
Saunders, Geo.			317	50		
Saunders, C.			300	00		
Sawyers, C.			295	00		
Smith, H. L.			180	00		
Spaniel, A.			270	00		
Thompson, A. A.			310	00		
Thorn, L.			312	50		
Wilson, R. H.			360	00		
Yearly, G. S.			340	00		
<i>Nepigon Reserve, \$9,383.24.</i>						
Barker, C.			352	50		
Barker, A.			265	32		
Barton, John			100	00		
Blair, Bert.			422	50		
Blair, G.			317	50		
Bliss, L. E.			1,170	00		
Disbursements			1,918	58		
					3,088	58
Bouchard, J.			505	00		
Connell, Wm.			45	00		
Cowtoche, J.			6	00		
Daba, M.			22	50		
Esquaga, Mr.			15	00		
Fitzback, J.			325	00		
Fraser, A.			110	00		
Hardy, F.			30	00		
Lafontaine, P.			450	00		
McDonald, J.			5	00		
McKechnie, J.			302	50		
McLean, A.			120	00		
McNairn, Wm.			185	00		
Nicholson, J.			447	50		
Newhouse, A.			187	50		
Perkins, A.			35	00		
Pigeon, C.			370	00		
Podan, J.			22	50		
<i>Carried forward</i>					257,731	63

Appendix No. 6.—Continued.

Service.	\$	c.	\$	c.	\$	c.
<i>Brought forward</i>					257,731	63
FOREST RESERVES.— <i>Concluded.</i>						
<i>Nepigon Reserve,—Concluded.</i>						
Rae, A.			297	50		
Reeve, A.			170	00		
Ryan, T.			302	50		
Salsbury, M.			553	34		
Shabegestic, J.			6	00		
Shabegestic, C.			6	00		
Shilling, H.			157	50		
Thompson, Jas.			150	00		
Winn, J.			10	50		
<i>Eastern Reserve, \$2,482.66.</i>						
Brooks, M.			307	50		
Bushel, D.			310	00		
Head, Geo.			310	00		
Holmes, W.			307	50		
McGregor, D.			310	00		
Smith, Chas.			310	00		
Tapping, Thos.	600	00				
Disbursements	27	66				
			627	66		
<i>Sibley Reserve, \$790.00.</i>						
Hornick, Geo.			345	00		
Oliver, J. A.			100	00		
Quinn, J. J.			345	00		
					67,313	59
FORESTRY.						
Bell Telephone Company	35	25				
Express and Cartage	99	60				
			134	85		
Supplies			2,351	95		
Labor			6,380	54		
Sundries			170	25		
					9,037	59
MINES AND MINING.						
Miller, W. G., Provincial Geologist, services.....	4,550	00				
Disbursements	215	53			4,765	53
Knight, C. W., 1st Assistant Geologist, services...	2,250	00				
Disbursements	743	43			2,993	43
Burrows, A. G., 2nd Assistant Geologist, services..	2,150	00				
Disbursements	359	84			2,509	84
Hopkins, P. E., 3rd Assistant Geologist, services..	1,500	00				
Disbursements	480	55			1,980	55
Rogers, W. R., Topographer, services.....	1,850	00				
Disbursements	63	50			1,913	50
Bell, W. J., Cartographer, services					1,500	00
Mickle, G. R., Mine Assessor, services	4,000	00				
Disbursements	450	80			4,450	80
<i>Carried forward</i>					334,082	81

Appendix No. 6.—Continued.

Service.	\$ c.	\$ c.	\$ c.
<i>Brought forward</i>			334,082 81
<i>MINES AND MINING.—Concluded.</i>			
Godson, T. E., Mining Commissioner, services.....	4,300 00		
Morris, W. H., Mining Commissioner's Clerk, services	1,350 00		
Disbursements	1,679 95	7,329 95	
Sutherland, T. F., Chief Inspector of Mines, services	2,500 00		
Disbursements	1,045 20	3,545 20	
Collins, E. A., 1st Assistant Inspector of Mines, services	2,300 00		
Disbursements	1,377 63	3,677 63	
McMillan, J. G., 2nd Assistant Inspector of Mines, services	2,300 00		
Disbursements	628 20	2,928 20	
Bartlett, Jas., 3rd Assistant Inspector of Mines, services	2,300 00		
Disbursements	1,507 92	3,807 92	
McArthur, T. A., Inspector of Recorders' Offices, services	700 00		
Disbursements	569 20	1,269 20	
Bennett, J. O., services		60 00	
Beno, J. W., services.....	250 98		
Disbursements	106 12	357 10	
Greenland, C. W., services		142 31	
Near, A. E., services	600 00		
Disbursements	105 30	705 30	
Parsons, A. L., services	415 81		
Disbursements	840 47	1,256 28	
Scott, John, services	700 00		
Disbursements	271 71	971 71	
King's Printer		452 68	
Methodist Book Room		198 56	
Express		8 00	
Sundries		243 32	
			47,066 01
<i>MINING RECORDERS.</i>			
Bowker, S. T., Recorder	614 90		
Miller, N., Recorder	384 10		
Disbursements	288 83	1,287 83	
Campbell, C. A., Recorder	900 00		
Glazier, M. B., Clerk	353 08		
Shanahan, Miss M., Stenographer.....	480 00		
Disbursements	383 80	2,116 88	
<i>Carried forward</i>			381,148 82

Appendix No. 6.—Continued.

Service.	\$	c.	\$	c.	\$	c.
<i>Brought forward</i>					381,148	82
MINING RECORDERS.— <i>Concluded.</i>						
Gauthier, G. H., Recorder	1,500	00				
Graham, F. W., Clerk	200	01				
O'Brien, J. D., Clerk	1,019	98				
Glazier, M. B., Clerk	636	92				
Disbursements	571	82				
			3,928	73		
Hough, J. A., Recorder	1,200	00				
Browning, A. J., Clerk	1,000	00				
Ginn, H. G., Clerk	150	00				
Gardiner, Miss I. M., Stenographer	196	15				
Disbursements	583	00				
			3,129	15		
McQuire, H. F., Recorder	500	00				
Disbursements	159	23				
			659	23		
Morgan, J. W., Recorder	1,000	00				
Disbursements	318	39				
			1,318	39		
Sheppard, H. E., Recorder	1,000	00				
Disbursements	142	05				
			1,142	05		
Skill, A., Recorder	1,200	00				
Disbursements	40	00				
			1,240	00		
Smith, G. T., Recorder	1,223	00				
McAulay, N. J., Recorder	701	65				
Sarsfield, J. M., Clerk	1,200	00				
Munroe, Miss E., Stenographer	780	00				
Smith, Miss M. H., Stenographer	298	10				
Disbursements	775	61				
			4,978	36		
Spry, W. L., Recorder	750	00				
Disbursements	102	25				
			852	25		
Express	77	32				
King's Printer	495	09				
Methodist Book Room	34	66				
			607	07		
					21,259	94
PROVINCIAL ASSAY OFFICE.						
McNeill, W. K.			1,800	00		
Rothwell, T. E.	1,200	00				
Disbursements	46	25				
			1,246	25		
Supplies	423	97				
Disbursements	102	02				
			525	99		
					3,572	24
CULLERS' ACT.						
Christie, W. P. Disbursements ..			9	60		
Duff, A. S., Services	24	00				
Disbursements	11	40				
			35	40		
McDougall, J. T. Disbursements ..			10	60		
					55	60
<i>Carried forward</i>					406,036	60

Appendix No. 6.—Continued.

Service.	\$ c.	\$ c.	\$ c.
<i>Brought forward</i>			406,036 60
EXPENSES NOT OTHERWISE PROVIDED FOR.			
Brophy, W., Salary <i>re</i> Toronto Exhibition.....	47 50		
Follis, Robt., Salary <i>re</i> Toronto Exhibition.....	30 00		
Mathewson, N., Salary <i>re</i> Toronto Exhibition....	100 00		
West, W., Salary <i>re</i> Toronto Exhibition.....	42 50		
McNeill, W. K., Disbursements <i>re</i> Toronto Exhibition	69 95		
Rothwell, T. E., Salary and Disbursements <i>re</i> Toronto Exhibition	50 65		
		340 60	
General Disbursements <i>re</i> Toronto Exhibition....		1,004 91	
			1,345 51
SURVEYS			26,999 35
BOARD OF SURVEYORS			200 00
EXPERIMENTAL TREATMENT OF ORE			732 94
REFUNDS—Miscellaneous			14,697 63
CONTINGENCIES.			
<i>Departmental.</i>			
Printing and Binding	4,360 04		
Stationery	4,893 91		
		9,253 95	
Postage	2,266 20		
Express	158 55		
		2,424 75	
Telegraphing	379 88		
Car Fare	50 00		
		429 88	
Subscriptions	242 11		
Advertising	6,658 56		
		6,900 67	
Typewriters and Repairs		299 72	
Cunningham, E. A., services <i>re</i> investigation of S. ½ Lot 3, Con. 2, Melick.....	68 40		
Ferguson, Hon. G. H., travelling expenses.....	400 00		
Hutcheon, Jas. Disbursements..	730 40		
Ledger, W. R., travelling expenses	23 85		
MacLennan, Allan, services <i>re</i> investigation of S. ½ Lot 3, Con. 2, Melick.....	75 00		
Perron, Jos., services <i>re</i> inspection of dams, Lake Temagami	17 50		
Rorke, L. V., travelling expenses.....	75 32		
		1,390 47	
Extra Clerks	3,657 15		
Annual Fees	43 00		
Sundries	97 46		
		3,797 61	
			24,497 05
<i>Carried forward</i>			474,509 08

Appendix No. 6.—Concluded.

Service.	\$ c.	\$ c.	\$ c.
<i>Brought forward</i> .....	.....	.....	474,509 08
CONTINGENCIES.—Concluded.			
BUREAU OF MINES.			
Printing and Binding	1,247 80		
Stationery	1,926 35		
		3,174 15	
Postage	478 72		
Telegraphing	94 65		
Express and Cartage	51 15		
Advertising	1,234 70		
Subscriptions.....	220 58		
Maps	469 37		
		2,549 17	
Gibson, T. W., travelling expenses	37 00		
Typewriters, repairs, etc.	132 75		
Addressograph Sales Co., Addressograph.....	141 08		
		310 83	
Nicholas, F. J., preparing index	1,756 15		
Rogers, W. R. Disbursements..	6 22		
Extra Clerks	877 73		
Sundries	267 95		
		2,908 05	
FORESTRY.			
Zavitz, E. J., travelling expenses	286 00		
Newman, F. S., travelling expenses	366 70		
White, J. H., travelling expenses	62 80		
		715 50	
Supplies	183 82		
Sundries	148 40		
		332 22	
			1,047 72
			484,499 00

D. GEO. ROSS,
Accountant.

ALBERT GRIGG,
Deputy Minister of Lands and Forests.

Appendix No. 7.

Statement of Expenses on account of various Services under the direction of the Department of Lands, Forests and Mines, for the year ending October 31st, 1915.

Service.	\$ c.	\$ c.
ALGONQUIN PARK	27,577 23	
ALGONQUIN PARK, EXTINGUISHING SQUATTERS' CLAIMS . .	3,200 00	
ALGONQUIN PARK, CLEANING RIGHT-OF-WAY	4,607 15	
QUETICO PROVINCIAL PARK		35,384 38
VETERANS' COMMUTATION		13,443 88
ROYAL NICKEL COMMISSION		400 00
		2,387 33
BOUNTY ACT VII., EDWARD VII., CAP. 14.		
Coniagas Reduction Co., Ltd.	18,397 50	
Deloro Mining and Reduction Co.	11,318 81	
Metals Chemical Co., Ltd.	1,308 72	
		31,025 03
		82,640 62

D. GEO. ROSS,
Accountant.

ALBERT GRIGG,
Deputy Minister of Lands and Forests.

Appendix No. 8.

WOODS AND FORESTS.

Statement of revenue collected during the year ending October 31st, 1915.

	\$	c.
Amount of Western collections at Department.....	1,395,278	76
do Belleville collections "	17,165	23
do Ottawa collections "	115,660	83
	\$1,528,104	82

JOHN HOUSER,
Chief Clerk in Charge.

ALBERT GRIGG
Deputy Minister.

*Appendix No. 9.***PATENTS BRANCH.**

Statement of Patents, etc., issued by the Patents Branch from 1st November, 1914, to 31st October, 1915.

Public Lands (late Crown).....	587
" " (late School).....	21
" " (late Clergy Reserves).....	3
" " (University).....	10
Free Grant Lands (Act of 1913).....	403
" " " (Act of 1901) (Veterans).....	235
Mining Lands.....	458
Mining Leases.....	51
Crown Leases.....	13
Licenses of Occupation.....	14
Temagami Leases.....	1
Sand and Gravel Leases.....	5
Total.....	1,801

CHARLES S. JONES,
Chief Clerk.

ALBERT GRIGG,
Deputy Minister.

Appendix

WOODS AND

Statement of Timber and Amounts accrued from Timber Dues, Ground

QUANTITY AND

Agencies.	Area covered by timber license.	Saw logs.			
		Pine.		Other.	
	Square miles.	Pieces.	Feet B.M.	Pieces.	Feet B.M.
Western Timber District	11,042½	8,532,047	338,941,457	1,160,601	40,950,990
Belleville Timber District	670	97,803	1,572,734	152,987	7,242,209
Ottawa Timber District	3,999½	676,061	43,404,643	288,673	6,475,703
	15,711¾	9,305,911	383,918,834	1,602,261	54,668,902

General Statement

Agencies.	Cordwood.		Tan Bark.	Railway Ties.	Cedar Posts.	Poles.	Stave Bolts.	Pulpwood,
	Hard.	Soft.						
	Cords.	Cords.	Cords.	Pieces.	Cords.	Pieces.	Cords.	Cords.
Western Timber District	34,805	27,500	4,790	720,140	163	2,825	4,121	281,443
Belleville Timber District	4,143	.....	.....	1,819	8	599	.....	5,913
Ottawa Timber District .....	.....	1,420	.....	7,205	91	1,953	.....	13,705
	38,948	28,920	4,790	729,164	262	5,377	4,121	301,061

JOHN HOUSER,
Chief Clerk in Charge.

No. 10.

FORESTS.

Rent and Bonus during the year ending 31st October, 1915.

DESCRIPTION OF TIMBER.

Boom and Dimension.				Square Timber.		Piling.		Cedar.
Pine.		Other.		Pine.		Tamarac.		
Pieces.	Feet B.M.	Pieces.	Feet B.M.	Pieces.	Cubic feet.	Pieces	± t.B.M.	Lineal feet.
178,389	19,692,639	18,539	2,150,944	5,090	266,949	2,785	559,601	659,480
649	71,281	4,477	838,693	.....	.....	.....	.....	.....
8,554	1,159,002	4,255	423,523	.....	.....	61	7,260	.....
187,592	20,922,922	27,271	3,413,160	5,090	266,949	2,846	566,861	659,480

of Timber.—Concluded.

Amounts accrued.

Trans-fer bonus.	Interest.	Trespass.	Timber dues.	Bonus.	Deposits timber sales	Ground rent.	Total.
\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.
2,410 00	9,601 85	34,518 58	913,584 38	451,226 42	36,000 00	61,367 50	1,508,708 73
.....	88 86	1,099 49	11,754 82	419 13	.....	4,295 00	17,657 30
150 00	1,068 86	747 33	77,432 38	.....	.....	23,885 00	103,283 57
2,560 00	10,759 57	36,365 40	1,002,771 58	451,645 55	36,000 00	89,547 50	1,629,649 60

ALBERT GRIGG,
Deputy Minister.

Appendix No. 11.

Statement of work done in the Military branch of the Department of Lands, Forests and Mines, during the year 1915.

References for Veteran Patents issued.....	192
Locations under military certificates.....	34
Certificates applied in payment of lands.....	21
Certificates surrendered for commutation money.....	8
Letters received.....	4,390
Letters written.....	4,050
Special letters to agents.....	580
Special letters to mining recorders.....	350
Maps and reports supplied to veterans.....	900
Printed forms sent out.....	400
Copies of Veteran Act supplied.....	120

H. E. JOHNSTON,
Chief Clerk in Charge.

ALBERT GRIGG,
Deputy Minister.

Appendix No. 12.

Statement of the number of Letters received and mailed by the Department in 1911-12, 1912-13, 1913-14 and 1914-15.

Year,	Sales and Free Grants.	Surveys.	Woods and Forests.	Mines.	Totals.	Names indexed.	Orders-in-Council.	Returned letters.	Letters, circulars and reports mailed from Department.
1911-12	20,050	10,150	7,700	8,750	50,407	57,000	150	76	63,125
1912-13	27,658	11,775	7,219	8,800	55,452	61,500	150	75	65,280
1913-14	25,023	11,100	8,598	8,200	52,921	59,000	125	60	64,000
1914-15	23,000	9,100	7,400	7,800	47,900	56,000	100	55	62,000

FRANK YEIGH,
Registrar.

ALBERT GRIGG,
Deputy Minister.

Appendix No. 13.

Statement showing the number of Locatees and of acres located; of purchasers and of acres sold; of lots resumed for non-performance of the settlement duties and of patents issued in Free Grant Townships during the year ending 31st October, 1915.

Township.	District or County.	Agent.	No. of persons located.	No. of acres located.	No. of purchasers.	No. of acres sold.	No. of lots resumed.	No. of patents issued.
Baxter	Muskoka.	J. B. Brown, Bracebridge..	4	529	...	...	1	4
Brunel	"	"	3	250	...	...	3	2
Cardwell	"	"	6	871	1	327	3	3
Chaffey	"	"	3	299	...	...	1	1
Draper	"	"	1	102	...	...	1	...
Franklin	"	"	4	686	1	7	4	4
Freeman	"	"	1	100	...	...	...	2
Macaulay	"	"	1	100	...	...	1	2
Medora	"	"	1	200	2	4	2	9
Monck .....	"	"	...	...	...	...	...	...
Morrison	"	"	6	673	1	25	2	3
Muskoka	"	"	1	100	1	4	1	1
McLean	"	"	1	100	...	...	1	...
Oakley	"	"	8	1,093	1	1	8	3
Ridout	"	"	3	509	...	...	3	1
Ryde	"	"	3	501	1	24	3	2
Sherborne....	Haliburton....	"	3	374	2	76	1	3
Sinclair.....	Muskoka	"	3	374	4	79	4	9
Stephenson...	"	"	...	...	...	...	...	...
Stisted .....	"	"	...	...	1	101	...	2
Watt .....	"	"	...	...	...	...	...	2
Wood	"	"	4	966	9	38	...	16
Burpee	Parry Sound..	Miss I. M. Campbell, Parry	5	879	...	...	...	2
Carling	"	" Sound	15	2,411	1	43	11	6
Christie.....	"	"	1	97	...	...	...	5
Conger	"	"	2	294	2	5	2	8
Cowper	"	"	...	136	...	...	...	3
Foley	"	"	3	...	...	...	2	...
Ferguson ..	"	"	...	...	...	...	...	1
Hagerman ...	"	"	1	38	...	...	1	1
Harrison ....	"	"	...	...	1	2	...	8
Henvey	"	"	1	200	...	...	...	...
Humphrey ...	"	"	3	340	...	...	2	...
McConkey	"	"	6	289	...	...	...	...
McDougall ...	"	"	1	100	...	...	1	2
McKellar ....	"	"	...	...	...	...	...	...
McKenzie ....	"	"	...	...	...	...	...	1
Monteith	"	"	5	704	...	...	6	1
Shawanaga ..	"	"	...	...	1	14	...	7
Wilson	"	"	3	400	2	30	1	2
Chapman	Parry Sound .	Dr. J. S. Freeborn,	...	...	...	...	...	...
		Magnetawan	4	655	1	1	2	2
Croft	"	"	6	696	1	2	4	2
Ferrie .....	"	"	...	...	...	...	...	...
Gurd	"	"	4	647	1	20	3	2
Lount.....	"	"	1	200	...	...	1	...
Machar	"	"	5	640	...	...	4	1
Mills	"	"	5	689	1	15	1	2
Pringle	"	"	5	823	1	1	1	2

Appendix No. 13.—Continued.

Township.	District or County.	Agent.	No. of persons located.	No. of acres located.	No. of purchasers.	No. of acres sold.	No. of lots resumed.	No. of patents issued.
Ryerson.....	Parry Sound..	Dr. J. S. Freeborn, Magnet- awan.	.....	.....	.....	.....	.....	.....
Spence	"	"	2	298	.....	.....	2	3
Strong	"	"	2	400	.....	.....	2	2
Armour	Parry Sound..	W. Jenkin, Emsdale.	1	208	.....	.....	1	1
Bethune	"	"	2	349	.....	.....	1	.....
Joly	"	"	28	2,783	1	1	14	.....
McMurrich .....	"	"	.....	.....	.....	.....	.....	2
Perry .....	"	"	.....	.....	.....	.....	.....	.....
Proudfoot	"	"	4	454	1	3	2	2
Hardy	Parry Sound..	H. J. Ellis, Powassan.. ....	.....	.....	1	15	.....	2
Himsworth	"	"	15	1,900	1	22	8	6
Laurier	"	"	1	100	1	27	1	4
Nipissing	"	"	13	1,761	2	3	10	5
Patterson.....	"	"	2	196	1	14	.....	1
Bonfield	Nipissing	W. J. Parsons, North Bay...	29	3,150	1	6	12	9
Boulter	"	"	17	2,011	3	6	1	2
Chisholm	"	"	14	1,378	1	76	7	10
Ferris	"	"	12	1,106	1	2½	7	9
Anson	Haliburton ...	R. H. Baker, Minden.....	2	201	.....	.....	2	.....
Glamorgan ..	"	"	4	500	.....	.....	6	.....
Hindon	"	"	1	200	.....	.....	.....	.....
Lutterworth..	"	"	5	584½	1	5	4	2
Minden	"	"	3	295	.....	.....	1	2
Snowdon	"	"	7	901	.....	.....	5	1
Stanhope.....	"	"	.....	.....	.....	.....	.....	3
Anstruther ...	Peterboro' .	William Hales, Apsley	2	200	.....	.....	1	1
Burleigh, N.D.	"	"	.....	.....	1	2½	.....	1
" S.D.	"	"	.....	.....	.....	.....	.....	.....
Chandos .....	"	"	.....	.....	.....	.....	.....	.....
Methuen	"	"	4	598	.....	.....	.....	.....
Cardiff	Haliburton ...	A. N. Wilson, Kinmount.....	8	1,079	.....	.....	4	.....
Cavendish	Peterboro'	"	2	176	.....	.....	3	.....
Galway	"	"	4	421	1	22	1	4
Monmouth ...	Haliburton ...	"	11	1,550	1	16	7	1
Bangor	Hastings	W. J. Douglas, Greenview...	3	512	.....	.....	4	1
Carlow	"	"	2	150	1	33	1	2
Cashel .....	"	"	.....	.....	.....	.....	.....	.....
Dungannon ..	"	"	8	935½	.....	.....	.....	5
Faraday	"	"	5	837	.....	.....	1	4
Herschel	"	"	13	1,549½	1	12	4	4
Limerick .....	"	"	.....	.....	1	2	.....	4
Mayo	"	"	2	146½	.....	.....	1	.....
Monteagle	"	"	5	550½	.....	.....	2	3
McClure	"	"	3	250	1	64	1	.....
Wicklow	"	"	4	508	2	100	2	4
Wollaston....	"	"	.....	.....	.....	.....	.....	1
Algona, S.....	Renfrew.....	Adam Prince, Wilno.....	.....	.....	.....	.....	.....	.....
Brougham ...	"	"	5	687	.....	.....	.....	1
Brudenell	"	"	2	161	.....	.....	.....	2
Burns	"	"	2	185	.....	.....	2	1

Appendix No. 13.—Continued.

Township.	District or County.	Agent.	No. of persons located.	No. of acres located.	No. of purchasers.	No. of acres sold.	No. of lots resumed.	No. of patents issued.
Grattan	Renfrew	Adam Prince, Wilno.....	.....	.....	.....	.....	2	4
Griffith .....	"	"	.....	.....	1	100	.....	1
Hagarty	"	"	3	300	.....	.....	1	1
Jones	"	"	1	100	.....	.....	.....	.....
Lyell	Nipissing	"	11	1,328	.....	.....	2	.....
Lyndoch	Renfrew	"	4	421	.....	.....	6	.....
Matawatchan.	"	"	3	462	.....	.....	.....	.....
Radcliffe	"	"	2	310	.....	.....	1	.....
Raglan	"	"	3	500	1	8	1	1
Richards	"	"	11	1,295	.....	.....	7	2
Sebastopol ..	"	"	2	300	.....	.....	.....	2
Sherwood	"	"	1	100	.....	.....	1	1
Algona, N....	Renfrew	Finlay Watt, Pembroke.....	1	104	.....	.....	.....	1
Alice	"	"	2	298	.....	.....	2	2
Buchanan	"	"	3	397	1	45	.....	.....
Fraser	"	"	2	200	2	5½	.....	3
Head .....	"	"	.....	.....	.....	.....	.....	.....
Maria .....	"	"	.....	.....	.....	.....	.....	.....
McKay .....	"	"	.....	.....	.....	.....	.....	.....
Petawawa	"	"	5	554	.....	.....	1	.....
Rolph	"	"	8	875	1	100	2	.....
Wilberforce ..	"	"	.....	.....	.....	.....	.....	1
Wylie (pt)....	"	"	5	497	.....	.....	.....	1
Calvin	Nipissing	Robert Small, Mattawan ...	4	450	.....	.....	6	1
Cameron (pt).	"	"	10	1,085	1	41	.....	1
Lauder	"	"	4	536	1	12	.....	3
Mattawan .....	"	"	.....	.....	.....	.....	.....	.....
Papineau	"	"	10	952½	.....	.....	9	2
Korah	Algoma	Edw'd Noble, Sault Ste. Marie	.....	.....	.....	.....	.....	2
Parke .....	"	"	.....	.....	.....	.....	.....	.....
Prince	"	"	4	574	.....	.....	3	1
Aberdeen	Algoma	Thos. Dodds, Thessalon.....	.....	.....	.....	.....	.....	.....
" add.	"	"	1	159	.....	.....	.....	1
Galbraith .....	"	"	.....	.....	2	7½	.....	4
Lefroy .....	"	"	.....	.....	.....	.....	.....	.....
Plummer .....	"	"	.....	.....	.....	.....	.....	.....
" add.	"	"	.....	.....	.....	.....	.....	.....
St. Joseph Is'd	Algoma	W. E. Whybourne, Marksville	13	1,270	1	¾	12	.....
Baldwin	Algoma	Edward Arthurs, Espanola .	.....	.....	.....	.....	.....	.....
Merritt	"	"	5	703	.....	.....	3	2
Blake	Thunder Bay.	W. A. Burrows, Port Arthur	17	2,637	.....	.....	15	3
Coumee	"	"	14	1,906½	1	14	10	15
Crooks	"	"	13	1,734½	1	32	7	.....
Dawson Road.	"	"	21	2,135½	2	72	16	.....
Dorton	"	"	8	1,338½	1	44	5	5
Gillies	"	"	1	155½	2	15	1	7
Gorham	"	"	27	3,918½	1	63½	11	14
Lybster	"	"	4	645½	2	187	5	1
Marks	"	"	12	1,867	.....	.....	4	4
McGregor	"	"	20	3,199	1	7	17	2
McIntyre	"	"	1	28	1	2	1	3
O'Connor	"	"	3	475	2	103	2	13

Appendix No. 13.—Continued.

Township.	District or County.	Agent.	No. of persons located.	No. of acres located.	No. of purchasers.	No. of acres sold.	No. of lots resumed.	No. of patents issued.
Oliver.....	Thunder Bay.	W. A. Burrows, Port Arthur	2	317	1	2	2	9
Paipoonge, N R	"	"	..	..	..	..	..	..
" " S R	"	"	..	..	..	..	..	6
Pardee.....	"	"	7	1,120	1	485	1	1
Pearson.....	"	"	39	6,330	1	14	22	11
Scoble.....	"	"	18	2,318	1	1 $\frac{1}{2}$	13	2
Stirling.....	"	"	53	7,938	3	175 $\frac{1}{2}$	61	..
Strange.....	"	"	3	472 $\frac{1}{2}$	..	..	7	3
Ware.....	"	"	38	5,469	1	51 $\frac{1}{2}$	27	12
Atwood.....	Rainy River.	William Cameron, Stratton..	..	..	..	..	..	..
Blue.....	"	"	5	764	4	7 $\frac{1}{2}$	5	7
Curran.....	"	"	2	322	2	6	2	1
Dewart.....	"	"	9	1,480	1	80	10	2
Dilke.....	"	"	..	..	1	16	..	4
Morley.....	"	"	3	323	2	7	3	3
Morson.....	"	"	24	3,195	5	156	22	1
McCrosson...	"	"	3	471	1	1	3	1
Nelles.....	"	"	6	880	1	82	7	1
Pattullo.....	"	"	11	1,302 $\frac{1}{2}$	6	54	5	7
Pratt.....	"	"	5	839 $\frac{1}{2}$	2	21	5	1
Rosebery.....	"	"	..	..	..	..	..	..
Shenston.....	"	"	1	81	1	4	..	2
Sifton.....	"	"	14	2,170	7	320 $\frac{1}{2}$	9	5
Spohn.....	"	"	19	2,833 $\frac{1}{2}$	7	169	11	2
Sutherland...	"	"	9	1,419 $\frac{1}{2}$	2	124 $\frac{1}{2}$	8	1
Tait.....	"	"	9	1,290	3	81 $\frac{1}{2}$	6	6
Tovell.....	"	"	11	1,713 $\frac{1}{2}$	2	9	8	5
Worthington..	"	"	..	..	..	..	..	2
Aylsworth...	Rainy River.	Alex. McFayden, Emo.....	1	40 $\frac{1}{2}$	..	..	..	2
Barwick.....	"	"	..	..	..	..	..	1
Burriess.....	"	"	5	872 $\frac{1}{2}$	1	3	4	7
Carpenter....	"	"	1	178	3	39	1	11
Crozier.....	"	"	2	262	1	4	1	2
Dance.....	"	"	17	2,733 $\frac{1}{2}$	1	2	12	5
Devlin.....	"	"	2	245	1	2	..	4
Dobie.....	"	"	3	494	3	58	3	6
Fleming.....	"	"	2	321	..	..	2	3
Kingsford....	"	"	6	960 $\frac{1}{2}$	1	1	6	1
Lash.....	"	"	4	448 $\frac{1}{2}$	1	3 $\frac{1}{2}$	3	1
Mather.....	"	"	16	835	1	11	5	7
Miscampbell..	"	"	4	641 $\frac{1}{2}$	1	1 $\frac{1}{2}$	4	1
Potts.....	"	"	5	817	3	19 $\frac{1}{2}$	6	6
Richardson...	"	"	12	1,942 $\frac{1}{2}$	..	..	5	4
Roddick.....	"	"	..	..	..	..	..	..
Woodyatt.....	"	"	..	..	..	..	..	..
Aubrey.....	Kenora.....	J. E. Gibson, Dryden.....	8	1,054 $\frac{1}{2}$	..	..	3	6
Britton.....	"	"	6	955 $\frac{1}{2}$	..	..	6	1
Eton.....	"	"	13	1,852	..	..	10	1
Langton.....	"	"	8	1,222	..	..	2	..
Melgund.....	"	"	5	624 $\frac{1}{2}$	1	3	5	2
Mutrie.....	"	"	8	1,326 $\frac{1}{2}$	2	109	3	1
Redvers.....	"	"	..	..	..	..	..	..
Rowell.....	"	"	3	470	..	..	..	1
Rugby.....	"	"	8	1,200	1	59	..	5
Sanford.....	"	"	6	724	..	..	3	4
Southworth..	"	"	8	974 $\frac{1}{2}$	..	..	7	4
Temple.....	"	"	7	1,094 $\frac{1}{2}$	2	18 $\frac{1}{2}$	6	1

Appendix No. 13.—Concluded.

Township.	District or County.	Agent.	No. of persons located.	No of acres located.	No. of purchasers.	No. of acres sold.	No. of lots resumed.	No. of patents issued.
Van Horne ...	Kenora	J. E. Gibson, Dryden... ..	10	1,148½	1	76	5	6
Wabigoon	"	"	13	2,063	2	63½	11	1
Wainwright ..	"	"	6	892	...	...	7	4
Zealand	"	"	38	5,927	6	359	12	2
Melick	Kenora	W. L. Spry, Kenora	16	2,433½	1	19	12	1
Pellatt	"	"	12	1,667	2	62	5	2
Blezard	Sudbury	J. A. Lemieux, Blezard	2	227½	1	½	...	4
Capreol	"	" Valley	1	144	1	31	1	5
Hanmer	"	"	4	226½	...	...	1	4
Lumsden	"	"	3	398	...	...	...	1
Balfour	Sudbury	J. K. MacLennan, Sudbury ..	3	453	...	...	2	6
Broder	"	"	8	1,147½	4	89	6	4
Chapleau .....	"	"	...	...	...	...	...	...
Dill	"	"	39	5,993½	1	1	5	3
Garson	"	"	10	1,534	1	130	3	3
Morgan	"	"	1	155½	...	...	...	1
Neelon	"	"	1	160	2	121	...	2
Rayside	"	"	3	304½	...	...	...	...
Appelby	Sudbury	Emile Langlois, Warren	7	1,114½	2	9½	2	3
Casimir	"	"	4	606	...	...	2	1
Dunnet	"	"	6	919½	1	1	...	3
Hagar	"	"	4	639	...	...	2	2
Jennings	"	"	1	160	...	...	1	1
Kirkpatrick ..	Nipissing ...	"	2	527½	1	32	1	3
Ratter	Sudbury	"	4	660	...	...	...	4
Caldwell	Nipissing ...	J. A. Pillion, Sturgeon Falls.	11	1,475	3	107	2	4
Cosby	Sudbury	"	4	624½	...	...	...	4
Grant	Nipissing ..	"	6	751	...	...	2	2
Macpherson ..	"	"	13	1,961½	...	...	2	6
Martland	Sudbury	"	6	881	...	...	...	3
Springer	Nipissing ...	"	2	328	1	58	1	3
Abinger	Lennox and Addington	Charles Both, Denbigh	2	213	...	...	4	...
Canonto, S. ...	Frontenac .....	"	...	...	...	...	...	...
" N. ...	"	"	...	...	...	...	...	...
Clarendon	"	"	1	98	...	...	1	2
Denbigh	Lennox and Addington	"	5	688	...	...	4	1
Miller (pt.) ...	Frontenac .....	"	...	...	...	...	...	2
Palmerston ..	"	"	...	...	...	...	...	...
McClintock ...	Haliburton ...	Unattached .....	...	...	3	32¾	...	3
Airy	Nipissing	"	4	411	...	...	1	...
Finlayson .....	"	"	...	...	2	31	...	3
Murchison ...	"	"	3	204	...	...	...	1
Sabine	"	"	8	1,298	...	...	2	3
			1355	185,020½	200	5,513¾	785	621
			No. of lots assigned		No. of acres assigned			
			133		17,466½			

Appendix No. 14.

Statement of Municipal Surveys for which instructions issued during the 12 months ending October 30th, 1915.

No.	Name of Surveyor.	No.	Date of Instructions.	Description of Survey.
1	E. R. Bingham.	695	Nov. 26th, 1914	To survey a portion of the City of Port Arthur, in the District of Thunder Bay, between John Street and McVicar and River Streets, and between Algoma and High Streets, being the balance of what was known as the old town plot of Prince Arthur's Landing, and to have the corners of all the streets marked by iron bars, duly planted thereat.
2	H. J. Beatty...	696	Mar. 23rd, 1915	To survey part of the boundary line dividing the Townships of Wilberforce and Stafford, commencing at the 20th concession of Wilberforce and ending at the town line of Alice, and to plant stone or other durable monuments at the front and rear angles of the concession roads above mentioned in the Township of Wilberforce.
3	W.G.McGeorge	697	Mar. 24th, 1915	To survey the concession line between Concessions II. and III., in the Township of Harwich, from Lot No. 3 to the waters of the Rond Eau, and to plant stone or iron monuments on each side thereof.
4	George Smith.	698	June 2nd, 1915	To survey the road allowance between concessions VIII. and IX., in the Township of Fenelon, across broken lot No. 11, or as much farther on either side as may be required to find an original monument, and to plant stone or other durable monuments at the angles of the lots.
5	Jas. J. MacKay	699	June 21st, 1915	To survey the limits of Mountain Park Avenue, in the City of Hamilton, from the west side of Wentworth Street to Lakeview Avenue, and of Wentworth Street from the allowance for road between the 3rd and 4th concessions of the Township of Barton and the brow of the mountain, now in the City of Hamilton, and to plant durable monuments showing the northerly and southerly boundaries of Mountain Park Avenue between Wentworth Street and Lakeview Avenue, and the easterly and westerly boundaries of Wentworth Street between the allowance for road between the 3rd and 4th concessions of the Township of Barton, and the brow of the mountain.
6	Geo. A. McCubbin	700	June 22nd, 1915	To survey the line in the Township of Zone, from between the 3rd and 4th concessions across concessions 4, 5 and 6, to the Longwoods Road and to mark the said line by permanent monuments.
7	S. B. Code.....	701	July 2nd, 1915	To survey the 6th concession line from Lot No. 25, at the side road to Lot No. 18, in the Township of Goulburn, and to have durable monuments planted at the corners of the above lots.

Appendix No. 14.—Concluded.

Statement of Municipal Surveys for which instructions issued during the 12 months ending October 31st, 1914.

No.	Name of Surveyor.	No.	Date of Instructions.	Description of Survey.
8	J. L. Morris...	702	Sept. 2nd, 1915.	To survey the concession line between concessions 8 and 9, opposite lots numbers 1, 2 and 3, in the Township of Westmeath, in the County of Renfrew, or as much farther as may be necessary on either side, and to mark the same by permanent stone or other durable material.
9	F. M. Eagle-son	703	Oct. 15th, 1915.	To survey part of the Concession Road Allowance between the 6th and 7th concessions of the Township of Kenyon, from the east side of Lot No. 7 to the west side of Lot No. 12, and also of the road allowance between lots numbers 6 and 7 in the 7th concession, and to plant durable monuments to define said road allowances opposite the above lots.
10	J. J. MacKay..	704	Oct. 22nd, 1915.	To survey the road allowance between the broken front and the first concession of the Township of North Grimsby, from the easterly limit of the said township of North Grimsby to the allowance for road between lots numbers 6 and 7 in the first and broken front concessions, and that durable monuments be planted defining the limits of the 66 foot reservation for a highway between the said broken front and the first concession of the township of North Grimsby from the easterly limit of the said township to the allowance for road between lots numbers 6 and 7 in the first and broken front concessions.

GEORGE B. KIRKPATRICK,
Director of Surveys.

Deputy Minister of Lands and Forests.

Appendix No. 15.

Statement of Municipal Surveys confirmed during the 12 months ending October 30th, 1915.

No.	Name of Surveyor.	No.	Date of Instructions.	Description of Survey.	Date when confirmed under R.S.O. 1897, Chap. 181, secs. 10-15, inclusive
1	E. R. Bingham..	691	April 7, 1914	To survey certain streets in the City of Port Arthur in the District of Thunder Bay, including North and South Water Streets, Cumberland Street, Court Street and Algoma Street and all intersecting streets between John Street and McVicar Street, and to have the corners of the streets marked by iron bars duly planted thereat.	June 14, 1915
2	A. S. Campbell...	692	April 9, 1914	To survey the road allowance between the 3rd and 4th concessions south of the base line in the Township of Wolfe Island in the County of Frontenac, across lots 8, 9 and 10, or as much further on either side as may be necessary to find an original post and to plant durable monuments at the angles of the above lots.	May 6, 1915
3	Speight & Van Nostrand..	693	May 20, 1914	To survey part of the town plot of Port Credit in the County of Peel, lying southwest of the River Credit and northeast of Joseph Street in the said village, and to plant stone or other durable monuments at the front and rear angles of the blocks lying in that part of the village, as shown on annexed plan, pursuant to the provisions of the Surveys Act.	Jan. 7, 1915
4	W. J. Moore.....	694	July 24, 1914	To survey the road allowance between concessions two and three, in the Township of Ross, from the proof line between lots ten and eleven southeasterly to Olmstead Lake, and to mark said road allowance by permanent monuments.	Nov. 4, 1914
5	George Smith....	698	June 2, 1915	To survey the road allowance between concessions VIII and IX in the Township of Feneelon, across broken Lot No. 11, or as much farther on either side as may be required to find an original monument, and to plant stone or other durable monuments at the angles of the lots.	Sept. 1, 1915

GEORGE B. KIRKPATRICK,
Director of Surveys.

Deputy Minister of Lands and Forests.

Appendix No. 16.

Statement of Crown Surveys in progress during the 12 months ending October 30th, 1915.

No.	Date of Instructions.	Name of Surveyor.	Description of Survey.	Amount Paid.	
				\$	c.
1	Sept. 15, 1915	E. R. Bingham..	Subdivision of the Township of Owens, District of Timiskaming	1,000	00
2	Sept. 7, 1915	M. E. Crouch....	Survey of the outlines of certain townships in the District of Algoma.....		
3	Oct. 15, 1915	R. S. Code.....	Survey of a tie line in the vicinity of Kowkash, District of Thunder Bay.....	500	00
4	Apr. 15, 1915	Jas. S. Dobie....	Survey of islands in the Georgian Bay of Lake Huron, Districts of Algoma and Manitoulin	5,000	00
5	July 9, 1915	C. H. Fullerton..	Subdivision of the Township of Cody, District of Timiskaming	500	00
6	Oct. 23, 1915	J. W. Fitzgerald..	Subdivision of a portion of land in the vicinity of Ramsay Station, C. P. Ry., District of Sudbury	500	00
7	Sept. 7, 1915	Lang & Ross.....	Survey of certain outlines of townships in the District of Algoma		
8	Apr. 20, 1915	Lang & Ross.....	Survey of islands on the North Shore of Lake Huron and the Georgian Bay, in the Districts of Manitoulin, Sudbury and Parry Sound	4,500	00
9	Aug. 10, 1915	Phillips & Benner.....	Subdivision of the Township of Forbes in the District of Thunder Bay	2,000	00
10	Apr. 16, 1915	T. J. Patten.....	Survey of islands in Lake Huron east and northeast of Manitoulin Island, in the District of Manitoulin	3,700	00
11	June 24, 1915	A. L. Russell....	Survey of certain lands north of the Townships of Ware, Gorham and MacGregor, in the District of Thunder Bay.....	1,500	00
12	July 27, 1915	E. Seager.....	Subdivision of the Township of Colenso, in the District of Kenora	1,000	00
				20,200	00

GEORGE B. KIRKPATRICK,

Director of Surveys.

Deputy Minister of Lands and Forests.

Appendix No. 17.

Statement of Crown Surveys completed and closed during the 12 months ending October 30th, 1915.

No.	Date of Instructions.	Name of Surveyor.	Description of Survey.	Amount paid.	No. of Acres.
1	June 7, 1912.	G. L. Brown.....	Survey of the Township of Mc-Millan, District of Algoma	\$ c 679 60	51,796
2	Oct. 15, 1914.	E. R. Bingham..	Subdivision of the Township of Upsala, in the District of Thunder Bay	2,781 35	23,061
3	July 8, 1914..	E. R. Bingham..	Subdivision of part of the Township of Fraleigh, in the District of Thunder Bay	398 33	8,170
4	July 28, 1914..	Phillips & Benner.....	Subdivision of the Township of Jacques, in the District of Thunder Bay	919 72	24,207
5	July 22, 1914..	A. McMeekin.....	Subdivision of the Township of Redvers, in the District of Kenora	1,440 00	23,976
6	July 30, 1915..	H. M. Anderson.....	Survey of timber in the Township of Notman, in the District of Nipissing	247 37	.....
7	Nov. 14, 1914..	J. R. Gill.....	Survey of a line across the Township of Beaumont, District of Sudbury	332 98	.....
8	Sept. 7, 1915.	McAuslan & Anderson.....	Survey of S. and E. boundaries of Nassau and south boundary of Storey, District of Algoma	6,799 35	131,210

GEORGE B. KIRKPATRICK,
Director of Surveys.

Deputy Minister of Lands and Forests.

Appendix No. 18.

SURVEY OF THE TOWNSHIP OF McMILLAN, IN THE DISTRICT OF ALGOMA.

MORRISBURG, Ontario, February 10th, 1914.

SIR,—In accordance with your instructions bearing date June 8th, 1912, I beg to report on the survey of the township of McMillan in the district of Algoma.

I left Ottawa Friday, June 21st, accompanied by one assistant, one chainman, a cook and eight axemen. Two assistants who were to have joined me here failed to put in an appearance. Upon my arrival at Cochrane I was joined by two additional chainmen so that on Wednesday, June 26th, I started for the township of McMillan with a party of thirteen, where we arrived on the 27th.

We proceeded southward along our east boundary with camp equipment and supplies to the south-east corner of the township, where I found an eight-inch tamarac post planted by O.L.S., T. B. Speight, marked McMillan on the north-west side, Gill on the north-east side and IXM. on the north side, and aside of this an iron post one and three-quarters of an inch in diameter.

From this point having marked the iron post with the letter R. on the north, south, east and west sides, and taken an observation I started the south boundary of the township on a course west astronomically. This line I ran for a distance of nine miles and from its western extremity, after taking an observation, I ran the west boundary of the township on a course north astronomically.

Upon the south boundary after laying off fifty links for half the road allowance between the townships of Gill and McMillan, I planted posts giving each lot a width of twenty-five chains and twenty-five links, except lot 28 to which I gave a width of thirty-three chains and twenty-five links, making due allowance for a road one chain in width between lots 6 and 7, 12 and 13, 18 and 19, and 24 and 25. I also planted a post fifty links north of each of the said posts to indicate the south-east and south-west corners of the lots in the first concession.

I took observations at the intersections with the south boundary of the centre lines of the road allowance between lots 6 and 7, 12 and 13, 18 and 19, and 24 and 25, and ran a line north astronomically from each of these intersections, planting on the line between lots 12 and 13 a post every one hundred and twenty chains. From these posts I ran the concession lines that were to be run, east and west to intersect the eastern and western boundaries.

Owing to the extremely wet weather and the quitting of my entire party I was forced to suspend operations for the season and store my camp equipment, leaving about one-third of the work still to perform. On my return to the township to resume work last August I found that my entire equipment had been stolen, but, although seriously handicapped, I proceeded and eventually finished the survey.

The Township of McMillan is a level plain through which passes the Negagama river, entering the township on lot 23 in the first concession and being joined by the Negagamisee or White river on lot 4 11th concession. A striking peculiarity of these rivers is the great depth of the river bed below the level of the country through which the river passes. They are both shallow and swift and have many rapids.

The township is fairly well timbered with spruce, balsam, poplar, balm-of-gilead, white birch and cedar, but the trees are for the most part only of medium size and portions of the township give evidence of having, years ago, been fire swept while the western part has been comparatively recently burnt over.

The soil is exceedingly good, being clay with a thin overlay of vegetable mold or muck. I found that invariably the presence of balm-of-gilead and poplar timber indicated good clay soil with little or no muck on the surface. At the camp of the divisional engineer of the Transcontinental Railway on lot 5, in the 7th concession, there were grown during the season of 1912 one of the finest crops of potatoes I have ever seen. Owing to the many hours of daylight in the summer months they grew rapidly and matured early. In this garden were to be found also radishes, lettuce, peas, beans, onions, etc., all of exceptionally good quality.

There are to be found in this township moose, red deer, beaver, otter, martin, mink and muskrat, rabbits without number and plenty of partridges, while all the streams abound with speckled trout.

In conclusion I beg to say that in my opinion this township is an ideal one for location of settlers as it possesses advantages and facilities for immediate settlement, that other townships not so fortunately situated, have been years in securing. The Transcontinental Railway crosses the township in a north-westerly direction giving immediate access to as fine agricultural lands as are to be found in this whole section of country. The Negagami river traversing this township from south to north gives a ready means of transporting logs to the railway, and the construction of roads in pursuance with the wise policy of the Ontario Government in that behalf will give settlers in this township transportation facilities that are not available in some of the older townships.

I have the honour to be, Sir,

Your obedient servant,

(Signed) GEO. L. BROWN,

Ontario Land Surveyor.

The Honourable, the Minister of Lands, Forests and Mines,
Toronto, Ontario.

Appendix No. 19.

SURVEY OF THE TOWNSHIP OF UPSALA IN THE DISTRICT OF THUNDER BAY.

FORT WILLIAM, Ontario, December 8th, 1914.

SIR,—I beg to submit the following report on the subdivision of the Township of Upsala in the District of Thunder Bay.

Immediately upon receipt of my instruction I proceeded to the station of Upsala, Ontario on the Canadian Pacific Railway about 83 miles west of the city of Fort William. Pursuant to instructions, I commenced my survey at the iron bar planted by O.L.S. Stewart on the right-of-way of the Canadian Pacific Railway. This iron bar was calculated to be 422.151 chains from the south-west angle of the said township. From this iron bar I ran east astronomically 57 chains 84.9 links, and at this point established the south-east angle of the township. From the same iron bar I ran west astronomically to intersect the line (produced) run to

mark the west limit of the said township. From the points designated on the projected plan forwarded to me I ran lines north astronomically for a distance of 6 miles.

I run the west limit of the township I was instructed to commence at the iron bar planted by O.L.S. Stewart on the right-of-way of the Canadian Pacific Railway near Hay lake and to run north astronomically from this point. This iron bar could not be found nor any trace of the line as run by O.L.S. Stewart. The country through which it had been run has since that time been burnt over and the line could not be found except for a few chains length at the southerly end of same. Having intersected this line produced, as stated above, I then ran north astronomically from this point 6 miles more or less. In running this line I had my men looking for traces of the old line but as stated above it was not to be found.

My instructions read to run my east limit of the township north astronomically from the south-east angle of the township as established by me. This I started to do but found that the said line ran along a long lake as seen from the field notes and plan. Off this east limit I had been instructed to run lines west astronomically. To do this would have involved great difficulties due to the lake aforesaid. It then seemed advisable to run the front of the concessions off one of the meridian lines in the centre of the township. I then chose the meridian that seemed to afford the best chainage that the front of the meridians might be run at the most accurate chainage possible. It seemed advisable, therefore, to turn off the line between lots 8 and 9 and this was accordingly done, having first taken an observation on this line. Particular care was taken in the chainage along this meridian. Lines marking the front of the several concessions were then run off this line to intersect the west limit of the township and later to intersect the east limit of the township. This east limit was run later on over the ice. As seen from the plan and field notes this work checked. Although the front of the concessions were therefore run slightly contrary to instructions as issued to me, they are seen to check as well, if not better than they would have done had they been run in the manner set forth in my instructions.

As seen from the plan, the depth of concession I is 79 chains while the depth of concession II is 81 chains. In explanation of this I beg to state that on this survey I had with me chainmen who have worked with me for years and I had every reason to believe that I could trust to them to chain in a proper manner. In some most unaccountable manner, in chaining along the east limit of the township they made an error of one chain and this error was not picked up until over four miles of line had been cut and also blazed. It was, therefore, impossible to correct this error in any good manner so I took the liberty of throwing an extra chain's length in the depth of the second concession, that the township might have its full depth of 6 miles. I regret this error exceedingly, but, as I have stated, I did not have green men with me but men who have been with me on this class of work for years and in whom I had every confidence.

In marking the limits of the lots in this township particular attention was paid to the blazing of the lines and I feel confident that your instructions have been followed to the letter in this respect as well as in the manner of the posts, which in all but two cases were of spruce or jack pine and were of the size stated in the instructions and well marked. Where designated in the instructions, I have planted iron posts alongside the wooden posts marking them in the required manner and taking bearing trees as instructed.

As seen from the plan there are many lakes in this township, most of them being quite deep and clear. The fishing in the larger ones is said to be very good

although my party had no opportunity to test this, due to the lateness of the season. The township is overrun with moose, great numbers of them being seen. There are a few red deer and caribou but not in any great numbers. Partridge were rather scarce, but there were great numbers of rabbits. As seen from the field notes, the only rock formations met with in this survey were granite and there were no economic minerals met with.

According to instruction I traversed the lakes included in this township in the required manner, and enclose with the plan and field notes, notes and separate plans of this work. The only river met with in the survey of the township was the Fire Steel river which was not of sufficient size to warrant a separate survey being made of it. As seen from the traverse notes, the lines of the traverse were connected with the lines marking the lots, according to the written instructions.

Due to the lateness of the season there was considerable frost met with in planting the posts, but in all cases that I personally saw the posts were driven through the frost and seemed to be very well planted. I will, however, if the Department so desires it, send a man throughout the township in the spring to go over the lines and ascertain if the posts are well planted. As stated above the posts were in good condition at the time of the survey, but is it possible that the frost will have moved them a little.

With regard to the soil in this township the south-east part of this township has good clay soil. In going westwards along the southern part of the township this changes to a light sandy soil and at the south-west part of the township it is quite rocky. The central part of the township has a light soil with clay in the small valleys. The west-central part is of a granite formation which runs for two or three lots east-wards from the west limit of the township. The northern part of the township is rocky except at the eastern end where the sandy soil is again met with. An estimate of the portion of the township suitable for agricultural purposes would place it at about 70 per cent., the better part of this being in the eastern and southern parts of the township.

The only improvements made in this township are at the old siding of Upsala. There is one settler on lot 3, concession II, but he has made no improvements on the land. At the time I left the township there were several men going into the township to look it over with an idea of settling there. I have had several inquiries at this office as to when the Department would be putting this land in the hands of the Crown Land agents. Furthermore, I understand from Mr. Burriss, the Crown Land agent in Port Arthur that he has had many inquiries from people living in that district near Upsala with regard to this same matter.

I beg to enclose plan and field notes, traverse notes and separate plans of the lakes traversed, chainmen's affidavits, statements, etc., according to instructions, and I trust that this report and this work will meet with your approval.

I have the honour to be, Sir,

Your obedient servant,

(Signed) E. R. BINGHAM,

Ontario Land Surveyor.

The Honourable, the Minister of Lands, Forests and Mines,
Toronto, Ontario.

Appendix No. 20.

SURVEY OF THE TOWNSHIP OF REDVERS, IN THE DISTRICT OF KENORA.

KENORA, Ontario, December 4th, 1914.

SIR,—Under instructions dated July 22nd, 1914, I proceeded to Quibell to subdivide the township of Redvers, abutting Wabigoon township on the north. I left Kenora Friday, August 22nd, on steamer Kathleen, which during the summer months plies the scenic Winnipeg river, between Kenora and Minaki. It is a delightful trip of two and a half hours. On nearing Minaki, now a reputable summer resort, one must see the flying flags upon the gay cottages and the noisy motor launch. The future of this resort is assured, since the Grand Trunk Pacific has built a commodious and luxurious inn. Leaving Minaki on the local, we arrived at Quibell on time. A throng of people hung idly about the station waiting for their mail. A wonderful change has taken place here in three years. Houses, barns, good roads, tilled lands, a general store, a blacksmith shop confront you as you step off the train. The settlement of Wabigoon, like our towns of the West, was the trick of a night and a day. The fine new school is an index to the temper of the people; the teacher receives a fair salary.

On Saturday morning I moved out to Black Bluff lake. Seven men accompanied me. The country did not inspire me, as we toted our supplies over the barren hills rough and steep. It was an ideal camping place for we were sheltered and had good water.

On Sunday night I took an observation of Polaris at eastern elongation. On Monday morning I started west towards the river from post marked 2 miles planted in the easterly limit of Redvers township about ten chains north of said lake. From my camp here I ran all my lines to the river, excepting those in the far north. Having cut out these lines I moved along the third concession to the other side of the river Wabigoon. I then made this my home for a couple of weeks or more pushing the lines north and west from the river. Had I moved camp down the river I would have saved at least a week of time. Experience always teaches those willing to learn. The water was low and very few creeks were running when we started work, but we soon encountered a hindrance, the continuous wet weather which kept back the work perceptibly.

I next moved camp to Long lake, still adhering to the third concession. Part travelled by trail, part by canoes. We were near the east end of the lake and a little south. From here a road ran into Quibell, but some parts were very wet. Still, it was shorter than the canoe trail to bring in supplies. I purchased half of my supplies at Kenora, the rest at Quibell.

In some ways the township was admirably suited for subdivision, at times sights of nearly half a mile being possible. The greatest hindrance was the dominant windfall that always lay in our path. To increase the difficulty young half dry jack pine bitten by mice and rabbits stood thick as grain. The axemen could have no freedom and it was trying on the temper. At times in returning home it took us fully half an hour to compass a mile. Still I carried all of my men through without a hitch. A favorable condition was the absence of extensive marshes.

At my second camp Mr. Hutcheon visited me in his official capacity. He in a generous manner pointed out my errors or rather omissions which I readily corrected. I spent two or three days in placing new posts and reblazing some of my lines.

I secured the services of Mr. Geoffrey C. Tothill to assist in the traverse work. He did all except Black Bluff and Long lakes, which I did myself. I found no difficulty in retracing the outlines of the township except the southerly limit where in places only scrub existed, it was extremely difficult. In closing the line at the north-west of Wabigoon the last part of the line lying between the Hutchinson river and Bowden lake was not a continuation of the line east of the river. That accounts for the drawing showing the line to travel north-westerly. My posts and lines are now first-class and reflect the coaching I received from Mr. Hutcheon.

The township is hilly with ridges running in every conceivable direction. It appears to lack uniformity of arrangement. It is composed of numerous unrelated eminences, that are invariably clothed with jack pine, unless they are bare.

The creeks are very small, but have very good water and appear to run in all directions endeavouring to elude the innumerable rock masses, none of which stand out eminently above each other. The valleys are erratic and not very large.

The Wabigoon river is guarded on either side by rock ridges that are not very high, averaging I suppose 50 to 60 feet. Its average depth is about six feet in the centre, but the sides are shallow and filled with small rocks. The lower end of the river contains considerable masses of weeds. Inspid is the proper word to give to the water when drinking it, due to the presence of sulphite or other ingredients obtained at the pulp mill at Dryden.

All of us found it a distinct laxative, and some a source of annoyance. The river possesses a slow current and the two rapids are passable either way, but boulders revealed themselves in the low water. The water possesses a clay color, due to its upper reaches passing through clay banks. We caught no fish in the river with the troll, but jack fish, pickerel and cat fish are quite abundant in places. The river could only be traversed with portable motors, unless the rapids were rid of the boulders. The river is quite uniform and does not change rapidly in form. No bays of any size are found along its course.

Clay lake occupies the north-west portion of the township. It is semi-clear pleasant to the taste and contains a few islands that are mostly rocky. Bowden lake occupies the south-west part and extends itself north into Red Pine lake, thence easterly into Long lake. A few unimportant creeks run into these basins. With Yellow lake, these all drain off by Hutchinson creek into the Wabigoon river.

An Indian trail runs from Red Pine lake across to Clay lake, being a narrow Indian trail.

I encountered very little good timber in my survey. The only timber I saw of any commercial value was around Clay lake and Yellow lake. Mostly jack pine and spruce with small swamps of tamarac compose the marketable timber. On the east side of the Wabigoon no timber of any value did I see. In fact, not enough even for building purposes can be found. In a few places cordwood could be made. There is on the north side of the river a strip of good timber running across lot 7 in the VI concession, consisting of spruce, jack pine and poplar averaging about ten chains wide. Between long and Clay lakes are quite a few clumps of scattered jack pine. Some of the trees are fit for ties, but most of it is cord wood size. Another strip of cordwood extends along the south limit east from the Wabigoon river. It is in small patches in the low places, only suitable for cord wood, however. As a wood producer Redvers is poor.

The drainage of Redvers township is exceedingly good, accounting for the absence of large marshes. The meandering Wabigoon, the cluggish Hutchinson creek, and the several lakes afford almost an ideal system of drainage.

Of mines and minerals little need be said. The rock is all of the Laurentian pink type, utterly devoid of any minerals. In all of the too numerous exposures of rock, not one quartz vein or stringer did I discover, no not even the ubiquitous white iron. The compass gave no sudden indication of abundant mineral. It ranged from 7 to 10 degrees. The islands are composed of the same rock, some having a few sand beaches.

On the Wabigoon river are two water falls or rapids of minor importance. The upper rapid just south of the third concession has a fall of about 6-10 of a foot. The lower one has the same fall. Both are shallow and the canoeman must watch to choose the proper channel. It is, therefore, needless to reserve any land here for power purposes. The falls in Wabigoon are the proper ones to develop.

Fish are found in all of the lakes. Clay lake has white fish which the other waters have not. Jack fish and pickerel inhabit the other waters.

Black Bluff lake is as clear as crystal. The water is good and cool being fed by springs at the east end. It is shallow, and drains through the east end. No creek drains into it. Judging from the shore line its level does not vary much.

Of an entirely different nature is Mack lake. It is low and marshy. Dark and brackish are its waters. It is small and its level is nearly uniform.

Clay lake is a large body of water of semi-transparency. No unpleasant taste can be detected in its waters. Excellent fish of various varieties are caught. It is not a deep lake; the wind almost any day churns up its waters east of the cluster of islands. Its shore is fairly even, but is uniformly rocky and covered with small jack pine. Its shores are not steep, but a ridge follows the shore generally. The islands in the lake are suitable for resort purposes, being similar to the islands at Minaki.

Bowden, Red Pine and Long lakes are really one. In the first two are a few small rocky islands. They are shaggy looking and low. The water in these lakes is fairly clear and has a pleasant taste, Long lake being the clearest. Long lake has an area of weeds at its entrance, the lake here being very shallow. It has alternate high and low shores, but all are uniformly rocky. Fish of all the common varieties are found in these waters. Bowden received its name at the time of the construction of the Grand Trunk Pacific. All call it that and the common name of Blueberry should be forgotten. Mr. Bowden was one of my gang and I think the name should be continued.

Only small creeks run into this basin; the one from Yellow lake being also very small and impassable due to rocks and shallowness.

Yellow is a marshy lake. Its waters are darkish yellow; has a swampish taste. On its banks especially on the north resides splendid jack pine and spruce. Jack fish and pickerel are caught here.

All the surplus water passes off through the Hutchinson creek, a stream averaging five chains wide passing through low lands during its short course.

The soil of this township is very similar to Wabigoon. It is a whitish clay, fine and very compact. Only in the low places did I discover any black soil. In this township I found no sand. I found the south-east part of the township unfit for farming being composed mainly of bare rock. Small portions are good but they are scattered. Blueberries we saw in plenty. The choice portion of the township is the south-west where all the squatters reside. On this part also grows the best timber. Rock occurs frequently in this part, but the soil is the master. In the north-east part it is very patchy. Very little timber of any moment will be found. The south-central part has considerable small poplar and this will likely

be fair soil, but the rock I think exceeds the soil. That portion north of the river has some areas of soil, but rock far exceeds the land. Of that part between Long and Clay lakes one can assert truly that there is sufficient rock. Numerous valleys are there, which I think would give good results. Jack pine shows everywhere indicating that the soil is shallow. Hence I would say that the area of good land is not large, not exceeding one-half. Roads cannot be run in direct lines. The depressions must be followed. I have given the name of the squatters in another sheet.

The following new posts were planted :

Lots 4 and 5, concession II.
Lots 3 and 4, concession II.
Lots 5 and 6, concession III.
Lots 3 and 4, concession III.
Lots 3 and 4, concession IV.
Lots 1 and 2, concession V.
Lots 1, concession III and IV.
Lots 3 and 4, concession VI.
Lots 5 and 6, concession VI.
Lots 2 and 3, concession IV.
Lots 6 and 7, concession IV.

All the posts along both sides of the river and marked R., and planted one chain from shore.

Post at the south east angle of lot 1, concession IV. There were no iron posts at the south-east and south-west angle. I took the whole gang and we went over the lines and replaced the posts that can be seen anywhere.

I observed polaris at eastern elongation to obtain north, taking latitude 50 for correction.

In obtaining areas of the lots bordering on Wabigoon and Clay lakes I subtracted the areas of the water and the road reserve.

I did the traverse on Long lake and the work on the south limit which consumed nearly three days. I left Quibell on October 16th and stopped off at Redditt till the following Saturday. My assistant was still working on the Traverse. After I had been home a week his notes arrived. I then secured Mr. Derouard to do the drawing. Mr. Rideout made out the field notes but made a mistake in paging them, so I did them all over again myself, which accounts greatly for the delay. Inexperience also had a great deal to do with it.

I shall forward all the notes and drawings by express.

I have the honour to be, Sir,

Your humble and obedient servant,

(Signed) ALBERT McMEEKIN,

Ontario Land Surveyor.

The Honourable, the Minister of Lands, Forests and Mines,
Toronto, Ontario.

Appendix No. 21.

SURVEY OF THE TOWNSHIP OF JACQUES, DISTRICT OF THUNDER BAY.

PORT ARTHUR, December 22nd, 1914.

SIR,—We beg to report that in accordance with your instructions dated July 28th, 1914, we have completed the survey of Jacques township, situated north of the township of Gorham in the district of Thunder Bay.

This township is about twenty miles north of the city of Port Arthur, from which city there is a well graded road to Concession VI, Gorham, from this point there is a winter road running through lots 15 and 16, Gorham, to the most southerly point of Surprise lake, which lake extends to the south boundary of the township of Jacques.

The survey was commenced at the north-east angle of lot 13, concession VIII, Gorham, the point being marked by a tamarac post, planted by O.L.S. Russell in 1913. From this point the south boundary of the township was run east astronomically to the south-east angle thereof, and from the same point run west astronomically 3 miles, 24 chains and 25 links to the south-west angle of the township, which point was established by producing the westerly limit of lot 18, concession VIII, Gorham, northerly to intersect our line. From the south-east angle of the township as established by the south boundary, the front angles of each lot were established by chaining 40 chains west astronomically and planting posts at equal intervals of 40 chains, excepting lot 12, the width of which was established by measuring from the south-west angle of lot 11 to the south-west angle of the township as established, the width being 64 chains and 25 links (64.25). From the south-east angle of the township a line was run south astronomically 79 chains and 93 links (79.93) to intersect the north limit of concession VII, Gorham, as run by O.L.S. Russell. From the same angle the east boundary of the township was run north astronomically. The west boundary of the township was run north astronomically from the south-west angle thereof. The side lines run, being those between lots 2 and 3, 4 and 5, 6 and 7, 8 and 9, 10 and 11 were run astronomically from the points established on the south boundary of the township. The side line between lots 6 and 7 was made the base for running the concession lines and the north boundary of the township; these were run from mile posts established by chaining from the south boundary east astronomically and west astronomically to intersect the other side lines and boundaries of the township as established.

In running the south boundary of the township west astronomically across lots 7 to 12 inclusive, the posts planted by O.L.S. Russell to mark the north limit of concession VIII, Gorham, were moved and planted at the intersections of the side lines as established by him, with the south boundary of the township. The distances these posts were moved and the new bearing trees were noted in the field notes.

Substantial wooden posts properly marked were planted on the concession lines and on the side lines where an intersection fell in a lake or river. It was not possible to mark bearing trees at several of the corners owing to the small and scattering nature of the timber. Iron posts were planted at the proper points as indicated in your instructions. In the case of half mile posts at lots 1 and 2, concession III, lots 11 and 12, concession IV, and lots 1 and 2, concession VI, these were planted on the north shore of the lakes and rivers in which the points

came at points north astronomically from their proper positions on the concession lines, and the distance measured to them from the concession lines noted in the field notes.

The lines were well opened up and properly blazed, and frequent observations were taken on Polaris at elongation so that the lines at no time varied more than four minutes from their proper bearing. The magnetic variation remained fairly constant at thirty minutes east.

TIMBER.

The greater part of the merchantable timber has been destroyed by fires which swept the country about twenty-five or thirty years ago, and portions were burned over again about ten years ago. Scattering groves of the original growth are to be found throughout, and the north-easterly section of the township is fairly well timbered, the chief economic species being the spruce and Banksian pine. In lots 9 and 10, concessions III, there is a stand of about five hundred trees of white pine of size averaging eighteen to twenty-four inches, but this is the only place in the township where this species is found.

SOIL.

The country throughout nearly the entire township is of a rough and broken nature and not well adapted for agricultural purposes. The percentage of land that would be suitable for farming including low lands and swamps, would be about twenty-five per cent. Along the east boundary of the township, in lots 1 and 2, through concessions II, III, and IV, there is considerable gravelly soil, and along some of the creeks and lakes, small tracts of from twenty to one hundred acres are available.

MINERALS.

The principal rocks encountered were red and gray granite with schist intrusions. Very little vein matter was observed, it being principally white, barren-looking quartz mostly in stringers. No bodies of iron of any importance were found.

LAKES.

The country abounds in lakes and creeks. The largest bodies Two-Island lake and One-Island lake have fairly clear water, but in the smaller lakes and creeks the waters are highly colored as they are fed principally by the soakage from the swamps. Concessions IV, V and VI and the greater part of III drain westerly and north-westerly and eventually find an outlet in Dog lake by way of Hawke lake. Concessions I, II, and part of III drain southerly and, with the exception of Barnum lake and Cummins lake, the waters drain into Hazelwood lake; Barnum and Cummins lakes drain easterly.

ISLANDS.

Twelve islands were found in the various lakes, and these were lettered from "A" to "H" and "J" to "M." Islands A, B, and C are in Two-Island lake, islands D and E are in One-Island lake, island F in Louttit lake, islands G and H

in Barnum lake, island J in Mary lake, island K in Lost lake, and islands L and M in Hay lake. Of these island B is the only one of any size, it is nicely timbered with birch and poplar and would be suitable for a summer resort. The remaining islands are small and rocky and are covered with scrub growth and underbrush.

ROUTES, ETC.

The township is crossed by a winter road leading to Greer Bros.' camps on the east bay of Dog lake; this being only a winter road follows the water courses principally so would not be suitable to open as a colonization road. Trappers' trails of recent date cover the entire township. There is a water route westerly from Paul lake which leads to Hawke bay of Dog lake.

CLEARINGS, IMPROVEMENTS, ETC.

There are three or four small cabins used by the trappers in the township and Greer Bros.' halfway camp is at the south end of Halfway lake; these were not occupied during the survey. No clearings of any nature were seen.

GAME.

Numerous indications were found of the smaller fur-bearing animals, principally lynx, beaver and fox. Moose and deer are not plentiful, and the only fish caught were pike. The waters of Two-Island and One-Island lakes appear to be suitable for trout, but none were caught.

We have the honour to be, Sir,

Your obedient servants,

(Signed) PHILLIPS & BENNER,

Ontario Land Surveyors.

The Honourable, the Minister of Lands, Forests and Mines,
Toronto, Ontario.

Appendix No. 22.

SUBDIVISION OF PART OF THE TOWNSHIP OF FRALEIGH, IN THE DISTRICT OF THUNDER BAY.

FORT WILLIAM, Dec 11th, 1914.

SIR,—I beg to submit the following report on the subdivision of part of the township of Fraleigh, in the district of Thunder Bay surveyed by me, under instructions dated July 8th, 1914.

The north-west part of this township had previously been subdivided by Mr. F. W. Paulin, O.L.S.

Mr. Paulin shows by his field notes the north limit of lot number ten (10), concession seven (?), to have been completed, but no post planted for the north-east

angle of same stating that he there came to a sheer cliff of 600 feet. I commenced my survey on this north limit of lot ten (10), concession seven (7), and found that said limit had been cut for about 34 chains from the north-west angle of the lot and stopped at a 150 foot cliff. I found several pickets on this line and having no opportunity for an observation at this point, produced the line eastward from his picket planting posts as shown in the notes. My instructions were to run this line to intersect the west limit of mining claim 115E which had been surveyed in 1889.

I ran this line as above described and eventually reached a line marking the limits of said claim. This, however, was not a surveyed, but merely a random line. Said line was followed to the north and to the south. All posts had either been destroyed or had never been planted. Said line was, however, well blazed. I then planted a post as instructed and chained south down said line to where the southerly limit of the claim intersected this west limit.

While this work was in progress I had men searching for the north limit of concession eight (8) as my instructions were to run the line between lots eight and nine (8 and 9), southerly from the post planted by O.L.S. Paulin on this line to mark the north-east angle of lot nine (9), concession eight (8). This north limit could not be found. It had never been run. Subsequent search (two weeks later) showed that it had been run from hill to hill, omitting the parts in the valleys. I therefore took the chainage of 41.12 on the front of concession eight (8), from north-east angle lot ten (10), concession seven (7), and at this point turned off the front of concession eight (8) and ran the line between lots eight (8) and nine (9) northward some 46 chains. My reason for using this chainage was that O.L.S. Paulin had shown this as the width of the lot, on the rear of concession eight (8), and using this chainage would put my line between lots eight (8) and nine (9), very close to the location he intended for it. As stated above, subsequent search proved the rear of concession eight (8) to have been run from hill to hill. I then connected blazes on the hills and ran the line through the valley to intersect the line I had run between lots eight and nine (8 and 9) and I planted a post. There was no sign of the balsam post said to have been planted by O.L.S. Paulin at this point. No trace whatever was found of mining claim 28E. shown on the projected plan sent to me to be on the line between lots eight (8) and nine (9). There was no survey line intersecting my line, nor any blazed line at all.

The line above described for the line between lots eight (8) and nine (9) I then produced to the southward and ran it for four miles south of the north-east angle of lot nine (9), concession seven (7). There had been no opportunity this far for an astronomical observation, the weather having been most unfavorable.

I next ran the line between concessions six (6) and seven (7). I found the post planted by O.L.S. Paulin to mark the north-east angle of lot eleven (11), concession six (6). I found five of his pickets on the line marking the north limit of said lot eleven (11). There being no opportunity here for an observation I then lined up the pickets aforesaid and produced the line on to the eastward.

As shown in the field notes this line so produced intersected my line between lots eight and nine (8 and 9) 5.97 chains north of the point as determined by chainage to mark the north-east angle of lot nine (9), concession six (6). To date there had been no astronomical observations. I was, therefore, not positive of the bearing of my line between lots eight and nine (8 and 9), it having been turned off one of O.L.S. Paulin's lines. The same may be said of my line between concessions six and seven (6 and 7). It was produced from O.L.S. Paulin's line, and

I was not sure of the bearing. Therefore, upon crossing this line between lots eight and nine (8 and 9) at such a great distance north of the point as determined by chainage, I felt justified in turning off this line somewhat, in running on to the eastward for the north limit of lots eight and seven (8 and 7). I, therefore, turned off 90 degrees 10 feet to the north-east from my line between lots eight and nine (8 and 9) and ran this line on to intersect the east boundary of the township. At the completion of this work I was able *for the first time* to get an astronomical observation which showed my line between lots eight and nine (8 and 9) to be on the correct bearing. My instructions read to produce the lines as run by O.L.S. Paulin on astronomical bearings. Without tying up the whole party for from one to three days on each line to be produced, this was impossible. It was deemed advisable to produce the lines as run by O.L.S. Paulin from the pickets established by him, these being well planted and the lines fairly well cut out. As soon as possible, in every case, after doing this, the lines were checked by an astronomical observation, but as above stated on the work described to date, this was impossible, due to the weather.

Having ascertained that my line between lots eight and nine (8 and 9) was on the correct astronomical bearing, I chained southward on it four miles from the north-east angle of lot nine (9), concession (7), (and later rechained this) and from this point ran eastward to intersect the east boundary of the township. This line intersected the east boundary 7.77 chains north of the post planted by O.L.S. MacDougall, to mark the south-west corner of the township Pearson. My reason for running the front of concession four (4) off my line between lots eight and nine (8 and 9) was as follows: I was five miles from the west boundary of the township of Fraleigh and it was out of the question to run this line from that boundary without tying up the whole party for several days. Furthermore, I was not certain of finding posts on that boundary when I did get there. As proved by subsequent work—there were no posts there. I knew my line between lots eight and nine (8 and 9) to be on a correct astronomical bearing, and I also knew by the same observation that the front of concession eight (8) (as produced from O.L.S. Paulin) was on the correct bearing. I, therefore, ran the front of concession four (4) as above described. Considering this to be the very best result that could be obtained from the information at hand. Knowing that O.L.S. Paulin's line for the front of concession seven (7) was so far from being on the correct bearing and not having run the front of concession six (6), it seemed far from correct to assume that this latter line would even approximate the correct bearing, and hence running the lines for the front of concessions four and five (4 and 5) from a point on the east boundary of the township, one and two miles south from the intersection of the front of concession six (6) with that line, would be not nearly as accurate as the way I actually did run them on the ground.

I ran the front of concession five (5) off my line between lots eight and nine (8 and 9) at the proper chainage of three miles south from the north-east angle of lot nine (9), concession seven (7), as shown on my field notes. These lines for the front of the four and five (4 and 5) concessions were again checked by astronomical observations.

The east limit of lot eleven (11), concession six (6), had been run by O.L.S. Paulin, but no post had been planted for the south-east angle of said lot. I then chained, having also to cut out, this line from the north-east angle of the said lot (as shown on my field notes) as there was no post there. I used pickets planted by said O.L.S. Paulin and produced line south to intersect my line for

the front of concession five (5). From this point of intersection it was put on the correct bearing in continuing on to the front of the fourth concession.

After great difficulty I found the line run by O.L.S. Paulin for the limit between lots fourteen and fifteen (14 and 15), in concession six (6). This had been partly run, but not as far south as the south-east angle of lot fifteen (15). I found pickets on this line and produced it south to intersect my line for the front of concession five (5). Notes show that the great distance it crossed to the west of where it should have. The bearing at which it intersected the front of concession five (5), plainly shows that this line has been in error this amount right through from the rear on concession eight (8). It is evident that O.L.S. Paulin must have turned off in error this amount from said rear of concession eight (8) and continued his line on this incorrect bearing right through to the point at which I picked it up. Upon intersection the front of concession five (5) I ran the line between lots fourteen and fifteen (14 and 15) on the correct bearing, through concession five (5) to intersect the front of concession four (4) as run by me.

My lines for the front of concessions four and five (4 and 5) were run westward to intersect the west boundary of the township. At the point where said lines intersected the west boundary, posts were planted. There were no posts planted by O.L.S. Poulin on this west boundary, or if so, they have been destroyed, for there was no trace of them to be found.

I picked up the line run by O.L.S. Paulin for the limit between lots sixteen and seventeen (16 and 17), in concession five (5), and produced it south to intersect the front of the fourth concession as run by me. I picked up the line between lots twelve and thirteen (12 and 13) as run by O.L.S. Paulin and produced it south to intersect the front of the fifth concession as run by me. At this point I put the said line on the correct bearing and ran it south to intersect the front of concession four (4) as run by me. I picked up O.L.S. Paulin's line for the front of concession five (5) and produced it easterly, as shown on plan and field notes.

In general I had great difficulty in picking up the lines run by O.L.S. Paulin. They were often well cut out but poorly blazed, usually on but two sides of the trees. As there were many trails throughout this township it made the work more difficult. I wasted many hours in locating lines that should have been very easy to find considering the kind of country they were run through.

The errors in the bearings of these lines are seen from the field notes, the chainage in particular, being far from accurate. Knowing that these lines were far from being on the correct bearing, after running the very first one, I was yet forced to produce those found, as above stated, or else tie up my party for one or two days at each line to enable me to get an observation before running the line. This was of course out of the question as I should have been in there at least two months to accomplish that. However, as soon as possible after starting a line from these previously run lines I ascertained the correct bearing from intersections with my own lines or from astronomical observations, and then corrected the lines. In view of the difficulty, part of which I have described, I believe the work to have been done as well as the circumstances would permit. My work is seen to check fairly well on itself, the errors being where lines previously run were produced.

I reached the township of Fraleigh by going to the station of Silver Mountain on the Port Arthur and Duluth Railway. It is thirty-seven (37) miles from

Fort William. From this point I was able to team my supplies in over a fairly good wagon road, to the north boundary of the township, about a twelve (12) mile trip. Running through the township is a wagon road known as the "Palisades Road." There are many trails through this township, most likely made by trappers and prospectors. There are no settlers in the township. There is a camp of Finns located in there. They have made no improvements.

In the valleys there is good clay soil. The extent of the valleys may be seen by a glance at the plan. The township is, however, greatly broken up by rocky hills and sheer precipices, varying in height from 100 feet to 400 feet. A conservative estimate of the part of the township surveyed by me, suitable for agricultural purposes would place it at about 20 per cent.

Pine river, a small stream varying from a few links to half a chain in width flows through part of the township. It varies in depth from two to six feet and is closely grown up with alders and willows. There was but one lake to be found in the section of the township surveyed by me, this being on the south boundary. There were many small creeks and springs found where good water could be obtained.

The bush for the greater part consisted of small birch, jack pine, poplar and spruce, with alders. No balsam to speak of. Some large spruce was found, but not enough to make it of great commercial value. There was no pine to be found in the township.

The hills and cliffs shown were all rocky with huge boulders at their base. Considerable magnetite was found on these hills, the magnetic variation running as high as 25 degrees as shown in the field notes.

Moose are very plentiful in this township, although they will not be if the Finns aforesaid are allowed to hunt there much longer. Rabbits and partridge are very plentiful. Wolves were to be heard day and night and appear to be very numerous.

This report will, I think, cover all the details connected with the survey and the topography of this township.

I have the honour to be, Sir,

Your obedient servant,

(Signed) E. R. BINGHAM,

Ontario Land Surveyor.

The Honourable, the Minister of Lands, Forests and Mines,
Toronto, Ontario.

Appendix No. 23.

MEMORANDUM OF PARTIES WHO PASSED AT THE CULLERS' EXAMINATION OF 1915.

No. 1495, Gorman, Bert, Kenney Siding. Examined at North Bay on August 3rd, 1915. Licensed September 27th, 1915.

No. 1496, Richey, A W., Sudbury. Same examination, etc

No. 1497, Landry, Fred. S., Sturgeon Falls. Same examination, etc.

No. 1498, Bailey, Alex., Thor Lake via Sudbury. Same examination, etc.
Toronto, December 15th, 1915.

Appendix No. 24.

ALGONQUIN PROVINCIAL PARK.

ALGONQUIN PARK P.O., November 4, 1915.

To the Honourable, the Minister of Lands, Forests and Mines, Toronto:

HONOURABLE SIR,—I beg to hand you my report on the Algonquin Provincial Park of Ontario for the fiscal year ending October 31st, 1915.

We, your staff, deplore the fact that the Empire is still in the midst of a war that is being felt to the most remote corners of the land. Even here in the heart of the forest we feel its effects and look forward to the day when, with God's blessing, the arm of the would-be oppressor shall be broken and peace restored.

Our permanent staff at the close of the year consists of superintendent and thirty men, two of whom, H. A. Callighan and Capt. Mark Robinson, have been called to join their regiments, the former doing duty at Niagara Camp, the latter acting as assistant recruiting officer at Barrie.

Our staff has done good work during the past year. Infringements of the Park Act have been few and of a minor character.

We have had a most favorable season as to bush fires, having had frequent rains, and I am glad to report no damage whatever from this source. The Grand Trunk Railway, carrying out the instructions of the Railway Commission, had a car constructed with two large tanks and a powerful pump fitted with a good supply of hose. This was stationed at our headquarters with a competent man in charge; the company's chief fire inspector, Mr. McKinnon, was also stationed here. The tank car, although not required this year to any extent, is an excellent thing, and would render most valuable assistance in the early stages of fire along the right-of-way. An emergency equipment of blankets, axes, shovels, pails, etc., was secured and stored at headquarters, and every possible precaution taken against fire.

Next season it is proposed to erect look-out towers at several of the highest points in the Park; these would be a great help in locating fires and enable us to reach them more quickly. There are many points in the Park where such towers could be erected to advantage, such as "Skymount" where with a tower of thirty-five feet the lookout would be able to locate a fire over an area of ten square miles on both sides. This point would be connected with headquarters by telephone, as could several others at a very moderate cost.

A number of men with the Park team of horses have been employed in cleaning along the railway. They clean and stump the right-of-way, and draw the debris out of the woods for some distance back from it. They have done excellent work, which not only adds to the appearance of the Park when passing through by rail, but will be a lasting benefit in the added protection it affords against fires from the locomotives. During the past year some twenty-two miles have been so cleaned on each side of the railway and a great deal of the debris burnt. The remainder will be burnt during the fall. The Grand Trunk Railway pay for half of this work. Much improvement has been made at headquarters, the work being done by the permanent staff as opportunity afforded. We have kept a few live animals in the animal house for the benefit of the many people who visit the Park and delight in seeing specimens of the native animals. We have not

realized as much money as we had expected from the sale of live animals, nearly all orders having been cancelled owing to the war. This, however, is only a temporary set back. We sent out a few live beaver to points in the United States and some to parks and gardens in Ontario. We also sold a few pelts, the demand for furs owing to the cause mentioned above being such that it was deemed unadvisable to take out a large quantity.



Trap for capturing live beaver, Algonquin Park.

Our staff report game in all sections very much on the increase. Beaver, otter, mink, marten and fisher are very abundant, as are the deer; the latter owing to a sense of protection becoming so tame that they visit our lawn nightly, as our flower beds bear sad testimony. Their tracks can be seen on the station platform and terraces of the hotel grounds. There is a great deal of hunting during the season on all sides of the Park, the deer from here keeping these hunting grounds well replenished. Fishing has been good in most waters, and

some very fine specimens have been taken. Receipts from licenses were not quite so good as last year, but much better than I had expected considering present conditions. I should like to see a good hatchery established here in connection with the Park. There is not a section of the Province better adapted to the purpose. Several important rivers take their rise in the Park, and by keeping them well supplied at their source, the stock in the rivers and in many of their tributaries is kept up. This has been well demonstrated by the small-mouthed bass placed in these waters. The Madawaska river and its feeders are now well stocked for two hundred miles from its source. Formerly there were no bass in these waters. I had a very fine specimen sent me this year weighing five pounds three ounces, and larger were reported taken. I hope the Department will next year send me a good supply of bass and trout fry from the hatcheries to place in the waters near the hotels, which require keeping up more than the distance streams.



Special crate for shipping live beaver and other animals, Algonquin Park.

After several years' experiment I am convinced that the close season for lake trout here is too late, and I would strongly recommend its being changed in the Park to the fifteenth day of October. I have noticed that all trout caught in these waters have spawned out shortly after that date, and I am satisfied from former observations that this applies to most of our northern waters in the Province.

Complying with your instructions a telephone line has been constructed from Rainy lake to the village of Whitney a distance of some sixty miles, the poles of the Grand Trunk Railway being used. This line is up-to-date throughout: we have sixteen 'phone connections at the most important points. The line has not only been of great benefit to us in our work, most of all in enabling us to get word quickly in case of fires and to arrange for assistance where required, thereby preventing several fires that would have been serious, but it has also been a great convenience to the hundreds of visitors and campers. Rainy Lake, the present terminus, is only fifteen miles from the town of Kearney, and I hope in the near

future the line may be completed to this point, thereby giving us connection with the Bell Telephone Company and long distance. This would be of considerable advantage to us and a boon to the visitors to the Park. A great deal of this construction work has been done by the rangers.

Six new shelters have been built, one at each of the following points: South river on the western boundary, Mud lake, Harries lake, Crotch lake, Rock lake and Grand lake. At the latter two points larger buildings have been put up with three rooms and a storehouse, they being main points. Grand lake is in the new section and on the line of the Canadian Northern Railway. Several of the old shelters have been repaired, portages have been cleaned out and several new ones cut. Wood and ice supply has also been looked after by the staff. These things have been done during the season when no trapping is done. During the trapping season the rangers travel their sections constantly. They go in pairs, each two



Natural reproduction of white pine, Petawawa river, Algonquin Park.

men having a regular beat which they are expected to patrol and keep in order, keeping portages clear and streams free from debris. Wolves are still numerous, although the staff kill from sixty to a hundred every year. There is no doubt these pests come in from the north as soon as the severe weather sets in, finding the food much more plentiful in the Park than elsewhere. Our men kill many that they do not get owing to snowfalls before they visit their baits.

The squatters in the section recently added to the Park have been paid for their improvements and have all moved out to other places. This section will soon fill up with game of all kinds, it being a splendid locality for such. There is also a vast quantity of young pine coming on in many parts, making it doubly important to protect this section from bush fires which have already done considerable damage in parts of it.

The Canadian Northern Railway have completed their line through the north end of the Park and regular trains will shortly be running on it. This line

follows some of our finest lakes and rivers, namely Grand lake, the Petewawa river, lakes Travers, Francis, Cedar, Oralee, the Couchons, Mink and Kiosh-koqui, crossing the Amable Dufond river at the latter point and bearing north from the Park lines shortly after. This opens up one of the finest sections in America from an angler's point of view. They are building round-houses at Cedar lake in the township of Deacon, and this I presume will be a divisional point. The system of fire-ranging along the line this year was very good.

We have had the usual large number of visitors from all over Canada and the United States, as well as from other countries. I had a very interesting visit from the Japanese consul, who was much interested in our methods of protection both of game and forest.

The tourist business has suffered from the war in most sections. Here, however, the hotels were well patronized, especially the Grand Trunk Railway camps on Smoke and Big Island lakes. As a health resort the Park has no equal, the boys and girls who make up the school camps here bearing wonderful testimony to this. Miss F. L. Case, of Rochester, N.Y., who has a camp of forty girls ranging from twelve to sixteen years of age and twenty teachers and help, making a camp of sixty persons, assured me that the average gain in weight of the forty girls was seven pounds in six weeks. We have four boys' camps, one on Source lake, one on Lake of Two Rivers, one on Cache lake and one on Joe lake. These camps are doing a splendid work, building up not only healthy bodies but minds as well. The boys spend six weeks in camp, and the marked improvement in them shows conclusively that for the city boy the woods are the proper place for a holiday. The education they receive stays with them all their lives, and is far-reaching in its influence for good. These camps, as do the other visitors, leave a lot of ready money with our merchants. It is hard to estimate just what it really meant to them from a financial standpoint. They also employ a large number of guides to whom they pay a good wage.

We have a number of permanent campers who have leased points and put up cottages, and have had several fresh applications this year, to all of whom leases have been granted. They pay \$10.00 for survey of their plot and an annual rental of \$7.50 per acre, the maximum acreage being two acres to cottagers and five to schools. The latter pay a yearly rental of \$75.00. Every alternate lot is reserved for camp sites for transient visitors. The leases run for twenty-one years, and holders are required to clean up the debris on their holdings and keep them in a good sanitary condition.

As it is only practicable to take out live animals in sections near the railway, I would recommend as soon as the market warrants doing so, taking out a number of beaver pelts annually from inland points. They have become very numerous and have filled up the surrounding country for many townships back from the Park. A good revenue might be had from them without the slightest detriment to the Park. I would recommend taking at least five hundred pelts a year. The proceeds going into the treasury as they do, are a benefit to every ratepayer in the Province. The surplus increase of fur-bearing animals in the Park judiciously taken out would represent several thousand dollars a year, and I think the Province should avail itself of this revenue just as it does of other resources of the country.

During the past year we have collected the following sums here, for fishing licenses \$1,115.00, rents \$365.00, beaver skins \$130.00, and live beaver \$120.00,

making a total of \$1,738.00. This does not include rents, etc., paid direct to Toronto.

I have the honour to be, Honourable Sir,

Yours very truly,

G. W. BARTLETT,

Superintendent

Appendix No. 25.

QUETICO PROVINCIAL PARK.

QUETICO PARK, November 1, 1915.

To the Honourable, the Minister of Lands, Forests and Mines, Toronto.

HONOURABLE SIR,—I beg to hand you my report on Quetico Provincial Park for the fiscal year ending October 31, 1915.

The Park staff during the past year has been composed of eleven rangers and the superintendent. Two of my rangers have enlisted during the past season, one of whom was severely wounded in the battle of Langemark, in France. I also had four fire-rangers on the Park during the past season. I find I will require some extra men for next season, as the territory to be patrolled is too great for the number of men now employed.

The size or area of the sections or "beats" is determined by the ease with which they can be travelled. In some cases in which long stretches of good canoeing and good portages can be had, the travelling may be done much more easily and in less time than in portions where the carries are long and rough and the streams small and shallow. During the past season we cleared out many portages and improved streams in various portions of the Park. Nine new shelter huts were built during the summer, which will be of great benefit to my rangers during the coming winter, saving them the trouble of portaging tents.

We also improved two small buildings at old lumber camps which will be used as shelter huts. One hut at the foot of Pickerel lake was slightly damaged by a falling tree, but was soon repaired. During last winter I chained some portions of the north boundary so as to determine the exact location of the outside mile limit of the Park with a view to prevent any hunting or trapping in that territory.

I also chained the distance from the Park headquarters to Kawene station on the Canadian Northern railway, and find it to be almost eight miles. I intend, when time permits, or by working at spare times during the fall and winter, to cut out a saddle trail around the south and southwesterly shores of Eva Lake, some twelve miles, so as to be in a position to reach the station and post office during the stormy period on the lakes, and especially during the freezing up time in the fall. Eva lake is five miles long, and is often very difficult to cross on account of high winds, sometimes impossible for days at a time.

I built a good ice house at headquarters last winter and put in a supply of ice, also erected a small hay shed, and now use the former shed for storing canoes

and equipment. I had signs painted and placed along the various routes in the Park wherever possible, also had my men put up fire notices along all the beats. We were very fortunate in being able to pass through the season without any fires in the Park. Two fires were started, presumably by lightning, but were noticed in time and extinguished.

I insist on my rangers being constantly on patrol and on the lookout for fires, especially during the dry season from May until September when tourists are canoeing in the Park. In speaking of tourists, I must pay a compliment to the many Americans who passed through the Park last season by saying that they take every precaution in preventing fires from getting away from them. They are very careful in choosing camping-grounds and in extinguishing fires when leaving camp. Many Americans passed through the Park, especially in the southern portions and along the International boundary, and in all cases complied with the regulations. I have had several letters from tourists who speak very highly of the treatment received from the rangers. Numbers of tourists come in, not for the sake of fishing, but for the sake of the life in the woods and to enjoy canoe trips on our excellent waterways, and especially to see our large game. The routes from Basswood lake to Agnes, Kinippi, via Sturgeon river to Sturgeon narrows, Moose bay, Sturgeon lake, and down Maligne river to Lac Lacroix seem to be the favorite ones, but many go to Eden island on Quetico lake. There were two Canadian travellers only in the Park this year.

I would advise placing metal signs along the boundaries of the Park for the guidance of travellers. The paint seems to wear off wooden signs very fast during the rainy season. There has not been any lumbering in the Park since I took charge of it. Lumbering is being carried on this season on timber berth G-43 north of Batchwaung lake. Some of this timber will be hauled through Park waters. I have placed two rangers in that vicinity to see that the Park laws are observed. It will be necessary to erect two new shelter huts this winter or in spring; one on Long island in Kinippi lake, and another on some island in Agnes lake. The huts built at Knife and Seiganagah lakes are in excellent positions. I visited my rangers along the International boundary in August, and find they are doing good work, building huts, improving trails, etc. The International boundary survey parties worked along the Park boundaries this season. I notice they take precautions to prevent fires, but regret that the nature of their work makes it necessary for them to do considerable slashing and at times cut down many large pine trees.

I do not think any illegal trapping or hunting was done during last winter. The rangers did not report any trouble in that line. Moose and red deer are very plentiful, and I am pleased to be able to report that the caribou are returning to this portion of the country, many having been seen in the Park during summer. I am told they have not been seen here for some years.

Beaver are increasing rapidly; quite a few new dams were built during spring and summer. Smaller fur-bearing animals are on the increase, no doubt owing to the protection afforded them in the Park.

Bears were very numerous last summer, and were often seen near headquarters. Wolves are still numerous, especially the smaller species, locally called "bush-wolves."

It is to be regretted that a bounty is not granted for the killing of these animals. They are in every respect as destructive to game as their larger brother the timber wolf. This I know from experience during the past winter. My

rangers have shot and poisoned many. I tried to get bounty for them but failed. Trappers outside of the Park have killed many, but also failed to get a bounty. Those animals kill many deer in winter, but as there is no inducement offered to destroy them hunters and others do not take the trouble to kill them off. Coyotes are very numerous in the Park and surrounding country, and owing to the scarcity of partridge and rabbits they have become very bold and come close to the buildings. Partridges are seldom seen this fall. The cold, heavy rains in the early part of June last seem to have destroyed the eggs and young birds. No doubt the coyotes have killed many also. Many large flocks of black ducks and mallard were seen in the smaller lakes this year, but they do not remain as there is no feed for them. I would suggest that a supply of wild rice and celery be sown in some of the lakes with a view to increasing the food supply of the ducks, thereby encouraging them to remain in Park waters where they could breed and rear their young without molestation.

I have cleaned up quite a scope of ground about the buildings so as to protect them from fire, and in cutting my firewood for the winter I am cleaning up all the debris along the shore of French lake near the house.

It will be necessary to secure about three hundred feet or so of lumber to cover and fix up a woodshed, as our wood is often covered by snow drifts in winter. This done, I intend going to the south portion of the Park along the eastern boundary when I can travel on the ice.

I have the honour to be, Sir,

Your obedient servant,

A. J. McDONALD,

Superintendent.

Appendix No 26.

REPORT OF THE FORESTRY BRANCH.

PARLIAMENT BUILDINGS, Toronto.

SIR,—I have the honour to submit the following report of the Forestry Branch for the year ending October 31st, 1915.

The following phases of forestry work have occupied the Branch during the past year:—

Provincial Forest Station in Norfolk County.

Distribution of forest planting material to applicants throughout Ontario.

Reports and correspondence in regard to various forestry problems.

Course of lectures at Ontario Agricultural College.

Railway Fire Protection along lines under the jurisdiction of the Board of Railway Commissioners of Canada.

PROVINCIAL FOREST STATION, NORFOLK COUNTY.

Forest Nurseries.—During the past season the Nurseries have produced the following stock:—

White Pine	475,500
White Cedar	175,000
Red Pine	54,400
Jack Pine	84,600
Scotch Pine	33,000
Yellow Pine	10,000
Miscellaneous Conifers	40,000
White or Soft Maple	15,600
Sugar Maple	12,100
Manitoba Maple	5,700
White Ash	20,500
American Elm	16,500
Carolina Poplar	4,200
Black Walnut	15,000
Butternut	3,000
Chestnut	7,500
Red Oak	7,500
Miscellaneous Hardwoods	11,000
Total	991,100

Our stock of Scotch Pine is low owing to the fact that we imported the one year old seedling in past years from Europe. Owing to the war, this source of material was closed. As it takes at least two years to produce, from the seed, satisfactory planting stock, it will take us another year to make up the loss.

In future we hope to grow all of our coniferous material from the seed and to no longer depend upon imported stock.

Plantations.—During this last season the various plantations have made very good growth. The plantation made in 1909 with Scotch Pine and Jack Pine upon the sand ridge as shown in Figure IX and X of my report of 1914, has now assumed the thicket stage. These trees are now ten to fifteen feet in height and the sandy ridge is taking on the appearance of a young forest.

One of our most promising trees is the European Larch (*Larix europea*). This tree, which is similar to our native Tamarac, has been used in mixture in some of our plantations. At present it is the most rapid growing tree which we have planted. Many specimens have sent out leaders this last season of 24 to 36 inches. This larch has a serious enemy in the Larch Saw Fly, and we are only planting it in mixtures with other trees where it seems to be less liable to attack.

Records are being kept of the growth and history of the various plantations and these will prove of great value in future problems in connection with reforestation.

Co-operative Planting.—Trees are supplied from the Norfolk County Nurseries to those wishing to undertake forest planting in other parts of Ontario. At present planting material is supplied free to those wishing to plant up waste land or to carry on demonstration plantings, as outlined in a Circular which will be supplied upon application to the Forestry Branch, Parliament Buildings.



Fig. 1—"Headquarters" Provincial Forest Station, Norfolk County.

During this last season we sent out from Norfolk about 325,000 young trees to other parts of Ontario for demonstration and experimental planting.

Natural Reproduction.—At this Station in Norfolk County, we have a number of areas of “second growth” White Pine and Hardwoods, where artificial planting will not be required. Such an area is shown in Fig. 3, where trees run from 3 to 12 inches in diameter. This is a delightful piece of woodland where the soil has a good covering of leaf mould and where forest soil conditions may be said to be ideal.

The educational feature of this work will become increasingly valuable. Many people are visiting the Forest Station from various parts of Ontario. During the last spring term the students of the Forest School of the University of Toronto spent a few days at the Station. They were given instruction in forest nursery and plantation work.

Early in the past summer we lost, through untimely death, our Superintendent, Mr. George Lane. I wish to take this opportunity of recording an appreciation of his work. He was an excellent manager of men and a most conscientious worker himself. Whatever success has attended the beginning of this work, was due in a large part to his loyalty and devotion to his work.

RAILWAY FIRE PROTECTION.

Before describing the details of our past season's work it may be of interest to give the legal status of Railway Fire Protection in Canada as related to Ontario conditions.

The Railway Act of Canada places the responsibility of protecting the public against fire loss, due to railway operation, upon the railway companies.

EXTRACTS FROM THE RAILWAY ACT OF CANADA AND AMENDMENTS THERETO RELATING TO FIRE PROTECTION.

The Board may make orders and regulations:—

- (f) With respect to the use on any engine of nettings, screens, grates and other devices, and the use on any engine or car of any appliances and precautions, and generally in connection with the railway, respecting the construction, use and maintenance of any fire-guard or works which may be deemed by the Board necessary and most suitable to prevent, as far as possible, fires from being started, or occurring, upon, along, or near the right-of-way of the railway, and may require the company to establish and maintain an efficient and competent staff of fire-rangers equipped with such appliances for fighting, or preventing fires from spreading, as the Board may deem proper, and to provide such rangers with proper and suitable equipment to enable them to move from place to place along the line of railway with all due speed. The Board may require the company to maintain an efficient patrol of the line of railway and other lands in the vicinity thereof, to which fires may spread, and generally define the duties of the company, and the said fire-rangers, in respect thereof. The Board may require the company

Sec 30,
Railway
Act (Chap.
37, R. A.,
1906).

(Amend-
ment, by
Sec. 2,
Chap. 22,
Railway
Act, 1911.)

to make returns of the names of fire-rangers in its employ in the performance of the above duties, and at the places or areas in which they are from time to time engaged. For the purpose of fighting and extinguishing fires, the said fire-rangers may follow the fires which spread from the railway to, over, and upon the lands to which they may spread.

269. The Board may make regulations:—

- (b) Providing that coal shall be used on all locomotives instead of wood in any district; and
- (c) Generally providing for the protection of property, and the protection, safety, accommodation and comfort of the public, and of the employees of the company, in the running and operating of trains by the company.

297. The company shall at all times maintain and keep its right-of-way free from dead or dry grass, weeds and other unnecessary combustible matter.

Whenever damage is caused to any property by a fire started by any railway locomotive, the company making use of such locomotive, whether guilty of negligence or not, shall be liable for such damage, and may be sued for the recovery of the amount of such damage in any court of competent jurisdiction; Provided that, if it be shown that the company has used modern and efficient appliances, and has not otherwise been guilty of any negligence, the total amount of compensation recoverable from the company under this section in respect of any one or more claims for damage from fire or fires started by the same locomotive and upon the same occasion, shall not exceed five thousand dollars; provided also that if there is any insurance existing on the property destroyed or damaged the total amount of damages sustained by any claimant in respect of the destruction or damage of such property shall, for the purposes of this subsection, be reduced by the amount accepted or recovered by or for the benefit of such claimant in respect of such insurance. No action shall lie against the company by reason of anything in any policy of insurance or by reason of payment of any moneys thereunder. The limitation of one year prescribed by section 306 of this Act shall run from the date of final judgment in any action brought by the assured to recover such insurance money, or, in the case of settlement, from the date of the receipt of such moneys by the assured, as the case may be.

298 (Enacted as Sec. 298 of principal Act, and other legislation repealed, Sec. 10, Chap. 22, 1911).

2. The compensation, in case the total amount recovered therefor is less than the claims established, shall be apportioned amongst the parties who suffered the loss, as the court or judge may determine.

3. The company shall have an insurable interest in all property upon or along its route, for which it may be held liable to compensate the owners for loss or damage by fire caused by a railway locomotive, and may procure insurance thereon in its own behalf.

4. The Board may order, upon such terms and conditions as it deems expedient, that fire guards be established and maintained by the company along the route of its railway and upon any lands, of His Majesty or of any person, lying along such route, and, subject to the terms and conditions of any such order, the company may at all times enter into and upon such lands for the purpose of establishing and maintaining such fire guards thereon, and freeing, from dead or dry grass, weeds and other unnecessary inflammable matter, the land between such fire guards and the line of railway.

Through the power bestowed upon the Board by the Railway Act a number of Orders have been issued in relation to Railway Fire Protection. At present we are working under Order 107, as given below:—

General Order No. 107.

THE BOARD OF RAILWAY COMMISSIONERS FOR CANADA.

Friday the 4th day of July, A.D. 1913.

It is Ordered as follows:—

1. Order No. 16570, dated May 22nd, 1912, is hereby rescinded.

2. Until further order, every Railway subject to the legislative authority of the Parliament of Canada, under construction or being operated by steam, shall, unless exempted by a special order of the Board, cause every locomotive engine used on the said railway, or portion of railway, being constructed or operated by it, to be fitted and kept fitted with netting mesh as hereinafter set forth, namely;

(a) On every engine equipped with an extension smoke box, the mesh shall not be larger than $2\frac{1}{2} \times 2\frac{1}{2}$ per inch of No. 10 Birmingham Wire Gauge, and shall be placed in the smoke box so as to extend completely over the aperture through which the smoke ascends, the openings of the said mesh not to exceed a quarter of an inch and one sixty-fourth (that is, seventeen sixty-fourths) of an inch to the square.

(b) On every engine equipped with a diamond stack, the mesh shall not be more than 3×3 per inch of No. 10 Birmingham Wire Gauge, and shall be placed at the flare of the diamond of the stack, so as to cover the same completely, the openings of said mesh not to exceed three-sixteenths and one-sixty-fourth (that is, thirteen sixty-fourths) of an inch to the square.

3. Every such railway company shall cause:—

(a) The openings of the ash pans on every locomotive engine used on the railway, or portion of railway, operated or being constructed by it, to be covered, when practicable, with heavy sheet iron dampers; and, if not practicable, with screen netting dampers $2\frac{1}{2} \times 2\frac{1}{2}$ per inch of No. 10 Birmingham Wire Gauge, such dampers to be fastened either by a heavy spring or by a split cotter and pins, or by such other method as may be approved by the Board.



Fig. 2—Coniferous seed beds, showing shades and overhead watering system,
Provincial Forest Station, Norfolk County.

(b) Overflow pipes from lifting injectors, or from water pipes from injector-delivery pipe, or from boiler, to be put into the front and back part of the ash pans and used from the first day of April to the first day of November, or during such portion of this period as the Board may prescribe, for wetting ash pans.

4. Every such railway company shall provide inspectors at terminal or divisional points where its locomotive engines are housed and repaired; and cause them, in addition to the duties to which they may be assigned by the officials of the railway companies in charge of such terminal or divisional points:—

(a) To examine at least once a week:

- (1) The Nettings;
- (2) Dead Plates;
- (3) Ash Pans;
- (4) Dampers;
- (5) Slides; and
- (6) Any other fire-protective appliance or appliances used on any and all engines running into the said terminal or divisional points.

(b) To keep a record of every inspection in a book to be furnished by the railway company for the purpose, showing:—

- (1) The numbers of the engines inspected;
- (2) The date and hour of day of such inspection;
- (3) The condition of the said fire-protective appliances and arrangements; and
- (4) A record of repairs made in any of the above-mentioned fire-protective appliances.

The said book to be open for inspection by any authorized officer of the Board.

(c) In case any of the said fire-protective appliances in any locomotive are found to be defective, said locomotive shall be removed from service and shall not (during said prescribed period) be returned to service unless and until such defects are remedied.

(d) Every such railway company shall also make an independent examination of the fire-protective appliances on all the locomotives of such company, at least once each month, and the conditions of such fire-protective appliances shall be reported direct to the Chief Mechanical Officer of the railway company, or other chief officer, held responsible for the condition of the motive power of the said company.

5. No employee of any such railway company shall—

(a) Do, or in any way cause, damage to the netting on the engine smoke-stack or to the netting in the front end of such engine;

(b) Open the back dampers of such engine while running ahead, or the front dampers while running tender first, except when there is snow on the ground, and it is necessary to take such action in order to have engine steam properly;

(c) Or otherwise do or cause damage or injury to any of the fire protective appliances on the said engines.

6. No such railway company shall permit fire, live coals, or ashes to be deposited upon its tracks or right of way, unless they are extinguished immediately thereafter, except in pits provided for the purpose.

7. No such railway company shall burn lignite coal on its locomotive engines as fuel for transportation purposes, unless otherwise ordered by the Board—lignite coal consisting of and including all varieties of coal between peat and bituminous, with a carbon-hydrogen ratio of 11.2 or less, such ratio being based on analysis of air-dried coal.



Fig. 3—Natural woodland conditions existing on parts of the land at the Provincial Forest Station.

8. Every such railway company shall establish and maintain fire-guards along the route of its railway as the Chief Fire Inspector may prescribe. The nature, extent, establishment and maintenance of such fire-guards shall be determined as follows:—

(a) The Chief Fire Inspector shall each year prepare and submit to every such railway company a statement of the measures necessary for establishing and maintaining the routes of such railways in a condition safe from fire, so far as may be practicable.

(b) Said measures may provide for the cutting and disposal by fire, or otherwise, of all or any growth of an inflammable character, and the burning or other

disposal of debris and litter, on a strip of sufficient width on one or both sides of the track; the ploughing or digging of land in strips of sufficient width on one or both sides of the track; and such other work as may, under the existing local conditions and at reasonable expense, tend to reduce to a minimum the occurrence and spread of fire.

(c) Said statements of the Chief Fire Inspector shall be so arranged as to deal with and prescribe measures for each separate portion of such railway upon and adjacent to which the fire risk calls for specific treatment. The intention shall be to adjust the protective measures to the local conditions and to make the expense proportionate to the fire risk and possible damage.



Fig. 4—Plantation made in 1909. Now seven years old (1915).

(d) Said statements of the Chief Fire Inspector shall prescribe dates on or within which the foregoing protective measures shall be commenced and completed, and the fire-guards maintained in a clean and safe condition.

(e) No such railway company shall permit its employees, agents, or contractors to enter upon land under cultivation, to construct fire-guards, without the consent of the owner or occupant of such land.

(f) Wherever the owner or occupant of such land objects to the construction of fire-guards, on the ground that the said construction would involve unreasonable loss or damage to property, the Company shall *at once* refer the matter to the Board, giving full particulars thereof, and shall in the meantime refrain from proceeding with the work.

(g) No agent, employee, or contractor of any such railway company shall permit gates to be left open or to cut or leave fences down whereby stock or crops may be injured or to do any other unnecessary damage to property, in the construction of fire-guards.

9. In carrying out the provisions of Section 297 of the Railway Act, which enacts that "the Company shall at all times maintain and keep its right-of-way free from dead or dry grass, weeds, and other unnecessary combustible matter," no such railway company or its agents, employees or contractors shall, between the first day of April and the first day of November, burn or cause to be burned



Fig. 5—Near view of plantation shown in Fig. 4.

any ties, cuttings, debris, or litter upon or near its right-of-way, except under such supervision as will prevent such fires from spreading beyond the strip being cleared. The Chief Fire Inspector or other authorized officer of the Board may require that no such burning be done along specified portions of the line of any such railway, except with the written permission or under the direction of the Chief Fire Inspector or other authorized officer of the Board.

16. The railway company shall provide and maintain a force of fire-rangers fit and sufficient for efficient patrol and fire-fighting duty during the period from the first day of April to the first day of November of each year; and the methods of such force shall be subject to the supervision and direction of the Chief Fire Inspector or other authorized officer of the Board.

11. The Chief Fire Inspector shall, each year, prepare and submit to each and every railway company a statement of the measures such railway companies shall take for the establishment and maintenance of said specially organized force. Said statements among other matters may provide for—

(a) The number of men to be employed on the said force, their location and general duties, and the methods and frequency of the patrol.

(b) The acquisition and location of necessary equipment for transporting the said force from place to place, and the acquisition and distributing of suitable fire-fighting tools; and



Fig. 6—Two year old Bull Pine seedlings ready for transplanting.

(c) Any other measures which are considered by him to be essential for the immediate control of fire and may be adopted at reasonable expense.

12. Whenever and while all the locomotive engines used upon any such railway, or any portion of it, burn nothing but oil as fuel, during the aforesaid prescribed period, under such conditions as the Board may approve, the Board will relieve the said railway of such portion of these regulations as may seem to it safe and expedient.

13. Every such railway company shall instruct and require its sectionmen and other employees, agents and contractors to take measures to report and extinguish fires on or near the right-of-way as follows:—

(a) Conductors, engineers, or trainmen who discover or receive notice of the existence and location of a fire burning upon or near the right-of-way, or of a fire which threatens land adjacent to the right-of-way, shall report the same by wire to the Superintendent, and shall also report it to the agent or persons in charge at the next point at which there shall be communication by telegraph or telephone, and to the first section employees passed. Notice of such fire shall also be given immediately by a system of warning whistles.

(b) It shall be the duty of the Superintendent or agent or person so informed to notify immediately the nearest forest officer and the nearest section employees of the railway, of the existence and location of such fire.



Fig 7—Remnants of previous forest growth shown in old pine stumps. Young pine started in blow sand.

(c) When fire is discovered, presumably started by the railway, such sectionmen or other employees of the railway as are available shall either independently or at the request of any authorized forest officer proceed to the fire immediately and take action to extinguish it; provided such sectionmen or other employees are not at the time engaged in labours immediately necessary to the safety of trains.

(d) In case the sectionmen or other employees available are not a sufficient force to extinguish the fire promptly, the railway company shall, either independently or at the request of any authorized forest officer, employ such other labourers as may be necessary to extinguish the fire; and as soon as a sufficient number of men, other than the sectionmen and regular employees, are obtained, the sectionmen and other regular employees shall be allowed to resume their regular duties.

(e) The provisions of this section shall apply to all fires occurring within 300 feet of the railway track, unless proof shall be furnished that such fires were not caused by the railway.

14. Every such railway company shall give particular instructions to its employees in relation to the foregoing regulations and shall cause such instructions to be posted at all stations, terminals and section houses along its lines of railway. In case said instructions are not also carried in employees' time tables during said prescribed period, or in "operating" and "maintenance of way" rule books, they shall, previous to April 1st of each year, be re-issued to all employees con-



Fig. 8—Red Pine cones spread out to dry in the operation of extracting the seed.

cerned, in the form of special instructions. The Chief Fire Inspector may waive the above requirements in whole or in part, as to lines or portions of lines where, in his judgment, the fire danger is not material.

15. Every such railway company allowing or permitting the violation of, or in any respect contravening or failing to obey any of the foregoing regulations, shall, in addition to any other liability which the said company may have incurred, be subject to a penalty of one hundred dollars for every such offence.

16. If any employee or other person included in the said regulations, fails or neglects to obey the same, or any of them, he shall, in addition to any other liability which he may have incurred, be subject to a penalty of twenty-five dollars for every such offence.

17. The Board may, upon the application of any railway company or other party interested, vary or rescind any order or direction of the Chief Fire Inspector made pursuant to the provisions of this Order.

(Sgd.) H. L. DRAYTON,
*Chief Commissioner,
Board of Railway Commissioners for Canada.*

BOARD OF RAILWAY COMMISSIONERS FOR CANADA.

Examined and certified as a true copy under
Section 23 of "The Railway Act."

A. D. CARTWRIGHT,
Secretary of Board of Railway Commissioners for Canada.

Ottawa, July 8th, 1913.

The following is a summary of the powers given the Officers of the Board of Railway Commissioners, under Order 107.

Control and inspection of fire protective appliances on locomotives.

Prevention of dumping of live coals, etc., along right-of-way.

Regulation of cleaning right-of-way.

Regulation of burning inflammable material along right-of-way.

Railway shall establish special patrol when and where necessary as required by the Chief Fire Inspector.

Reporting and extinguishing fires by regular railway employees.

In order to carry out a system of inspection for the enforcement of Order 107, a co-operative arrangement was entered into between the Board of Railway Commissioners and the Province of Ontario. Under this arrangement the Provincial Forester was appointed Provincial Fire Inspector, an Officer of the Board, without additional compensation, to act under the direction of the Chief Fire Inspector.

During this last fire season, eleven Divisional Inspectors were appointed to devote their whole time to detailed field inspection. The Divisional Inspector is appointed and paid by the Province but is also appointed an Officer of the Board clothing him with the necessary power to act. Mr. J. H. White was temporarily appointed as Assistant Provincial Fire Inspector to act during the fire season. Mr. White's assistance was very much appreciated and it did much to place this work upon an efficient basis.

These men covered the lines of the following railways running through forest regions: Canadian Pacific Railway; Canadian Northern Railway; Grand Trunk Railway; Algoma Central and Hudson Bay Railway; Algoma Eastern Railway and the Grand Trunk Pacific until the Ontario lines of this road were transferred to the Dominion Railway System.

It will be noted that the Board of Railway Commissioners has no jurisdiction over the Timiskaming and Northern Ontario Railway nor over the Transcontinental lines now a part of the Dominion Railway System.

In addition to the work of field inspection, these men inspected about 450 locomotives. This work is being done under the direction of the Operating Department of the Board.

The duties of the Divisional Fire Inspector can best be explained by the following memo. issued as part of their instructions.

CIRCULAR FOR ONTARIO DIVISIONAL FIRE INSPECTORS OF
BOARD OF RAILWAY COMMISSIONERS.

[This does not supersede the Memorandum sent out by the Fire Inspection Department of Ottawa, dated 14 April, but merely synthesises the more important points.]

Parliament Buildings, Toronto.

(a) *General:*

The work called for is (1) a checking up of the railway companies in regard to their carrying out the provisions of Order 107, and (2) the investigation of fires.

The result desired is the securing of protection from railway fires, and each divisional inspector is responsible for achieving this in his territory. This is possible through the powers conferred by Order 107 on Officers of the Board of Railway Commissioners.

The method toward this end should be one of co-operation with the Officials of the Company, not dictation or criticism.

(b) *Fires:*

(1) Arrange with the Railway Officials to be notified of fires. Knowledge of fires other than those you are concerned with should be transmitted to the nearest Crown Timber Agent and Chief Fire Ranger of the division.

(2) What fires to report:—All fires that get within 300 feet of the track should be reported in duplicate on the regular form, whether caused by railway or not, whether large or small, and regardless of damage. These fires will be of two classes: (a) those which started within 300 feet of the track and (b) those which started outside the 300-foot limit, but burned in towards the line to within this limit. In the case of the latter class of fires, this fact should be made clear in the report.

(3) *Investigation of each fire:*

(a) Determining the probable cause is very important; if it can be traced to a certain engine, wire the information collect to the General Superintendent of the line, and note this action in your report.

(b) Did railway employees comply with Regulation 13, (a), (b), (c), (d), (e)? [Insert this fact on Weekly Report Form, 6th last heading.]

(c) On the Fire Report Form give distance from track where fire started as exactly as possible; if this cannot be ascertained, state whether it started probably within or without the 300-foot limit. The acreage of each class of growth should be given, and damage for each class.

(d) A cursory investigation without getting the essential facts is time largely wasted; better take the time to find out what you are after. All information gathered as to cause, damage, etc., is private.

(c) *Right of Way:*

(1) All burning must be done under supervision by the Railway Company (Regulation 9).

(2) Any Board Officer can prohibit burning if proper supervision is not being given, or if he considers it too dangerous (Regulation 9).

(3) The principle to be followed is hearty co-operation with the Company to get all the debris burned up that can be reasonably risked.

(d) *Patrol:*

(1) Are all the requirements of the patrol letter of the Chief Fire Inspector being carried out by the Company?

(2) Relief should be granted in writing from requirements unnecessary owing to weather conditions.

(3) The matter of increased patrol, if in your judgment such is necessary, should be taken up with the local officials; if no action can be procured, notify the Toronto office of what steps you have taken, and what you definitely recommend.

(c) *Equipment:*

(1) Are patrolmen, velocipede men, and section (tool) houses equipped with fire-fighting tools, as indicated in the patrol letter?

(2) Are notices posted at terminals, stations and section-houses, as required by Regulation 14?

(f) *Locomotive Inspection:*

(1) This work is primarily not under the Fire Inspection Department of the Board, but under the Operating Department. However, by an arrangement between these two Departments, provision is made for the instruction in engine inspection work of Divisional Fire Inspectors by the Operating Department. Such Inspectors will, as far as possible, inspect fire protective appliances on engines, and report on Locomotive Inspection Form. This report is of little value unless for each engine it is stated exactly what appliances were examined, and what appliances were found defective.

(2) Examine the Company's round-house inspection book (Regulation 4).

(3) General complaints about the condition of engines are of little value; collect specific instances of defective engines, and arrangements will be made for a visit by an Official of the Operating Department of the Board, if the circumstances call for this action.

(g) *Weekly Reports:*

The idea behind the system of Weekly Reports is that this office may be in touch with the progress in all matters concerning each division. The reports should form a continuous account of all steps taken week after week by each Inspector in connection with the carrying out of Order 107, as indicated above. The headings on the form are selected with this end in view.

Railway companies are waking up to the seriousness of the fire situation.

High stumpage values are making forest fires costly from the direct standpoint of damage claims.

Forest products give rise to freight, and forest fires destroy present and potential sources of freight traffic.

Additional cost of ties, poles and other forest products necessary in railway operation, have awakened railways to the necessity of conservation.

In some regions the scenic value of a right-of-way is a definite asset. Tourist traffic is an important source of revenue.

Special Fire Protective Organization.—All of the larger railways recognize that a responsible organization within the company must exist for adequate fire protection.

The Canadian Pacific Railway have a well defined fire protection organization with headquarters at Montreal for eastern lines.

The Canadian Northern Railway have a similar organization on lines west of Port Arthur.

A start was made for an organization on the Canadian Northern Ontario. This was only partially carried out this past season as many parts of the line were not organized for operation.

The Grand Trunk Railway placed a man in special charge of fire protection work upon lines in the Algonquin Park region.

Along with the development of a special fire protective organization within the company, we find a definite effort to educate the various officials and employees. While the Board of Railway Commissioners require a special Fire Prevention Circular to be posted (see Order 107, Sec. 14), some companies go far beyond this and are issuing special bulletins and letters to employees to make clear the importance of keeping down the fire loss.

Right-of-Way Cleaning.—Right-of-way cleaning is a problem which has been given considerable attention by our Inspectors. Along many lines old logs, stumps and other debris had been allowed to collect for years. This condition frequently made it difficult to put out small fires.

In many cases this cleaning up entailed more labour than the ordinary section crews could devote to it. In a number of districts, special gangs have been placed at this work. During this last season the Board have not felt like pressing this question too strongly, owing to the financial conditions of the period.

The Canadian Pacific Railway have devoted considerable special labour to this problem and their lines through the forest regions are in a very creditable condition.

The Grand Trunk Railway have made a splendid start on their lines throughout the Algonquin Park, Parry Sound and Muskoka regions, and debris which had lain for years has been piled and burned or is ready for burning. Through a co-operative arrangement, between the Grand Trunk Railway and the Province in Algonquin Park, the right-of-way and a protective belt adjacent has been cleaned up of all inflammable material. This work is being reported on by the Park authorities and I shall make no further reference to it. The necessity of the extension of this kind of work will be referred to later.

The Canadian Northern Ontario, arranged with the Booth Lumber Company to clean up certain portions of their line between North Bay and Pembroke.

There is still much to be desired in right-of-way cleaning by the Canadian Northern Ontario and I hope that during next season, when their organization is complete, this question will be satisfactorily undertaken.

Patrol.—The railway companies are required to furnish fire rangers or patrol. (See Order 107, Sec. 10.)

In ordinary conditions the section crews are instructed to cover this work, but where bad fire hazards exist, special patrol is called for by the Board.

The Canadian Northern Ontario had special patrol men on velocipedes between Ruel and Pembroke at sections where special protection was required.

The Grand Trunk had a special man on the Algonquin Park line. They also had a tank car equipped with a pump and one thousand feet of hose. This car was in charge of a man and was always ready to be rushed to any point where right-of-way fires were to be fought.

The Canadian Pacific had a number of special patrols during the fire season placed at dangerous sections where fire hazards were bad.

The Algoma Central and Hudson Bay Railway Company had twenty-two bridge watchmen between the Soo and Hearst, equipped with velocipedes, whose duty it was to do fire patrol work.

STATISTICAL REPORT OF RAILWAY FIRES IN ONTARIO, 1915, FOR THOSE LINES UNDER
JURISDICTION OF BOARD OF RAILWAY COMMISSIONERS FOR CANADA, ORDER 107.

	C. N. R.	G. T. R.	C. P. R.	A. C.	Totals
(a) Railway Fires:					
1. Number, by causes:—					
(a) Locomotives	19	7	6	1	33
(b) Employees	4	1	20	1	26
(c) Total	23	8	26	2	59
2. Areas burned (acres):					
(a) Young forest growth	7½	2,062	783	.....	.....
(b) Timber land	3	5	3	.....	.....
(c) Slash or old burn	147	80	332½	626	.....
(d) Other classes of land	18½	½	6½	.....	.....
(e) Total	176½	2,147½	1,125½	626	4,075
3. Value of property destroyed .					
(a) Young forest growth		\$427 00	\$100 00	.....	.....
(b) Standing timber		10 00		.....	.....
(c) Slash			150 00	.....	.....
(d) Other classes of land .....				.....	.....
(e) Forest products	\$1,580 00	74 00	411 25	.....	.....
(f) Other property	794 00	610 00	.....	.....	.....
(g) Total	\$2,374 00	\$1,121 00	\$661 25	.....	\$4,156 25
(b) Known Causes other than Railway Fires:					
1. Number due to:—					
(a) Tramps, campers, etc.	2	.....	2	2	6
(b) Settlers	9	.....	4	.....	13
(c) Other known causes	4	.....	.....	.....	4
(d) Total	15	.....	6	2	23
2. Areas burned (acres):					
(a) Young forest growth	1,275½	.....	19½	.....	.....
(b) Timber land	425	.....	40	.....	.....
(c) Slash or old burn	1,205½	.....	½	1	.....
(d) Other classes of land	204½	.....	.....	.....	.....
(e) Total	3,110½	.....	60	1	3,171½
3. Value of property destroyed:					
(a) Young forest growth	\$500 00	.....	\$70 00	.....	.....
(b) Standing timber	5,700 00	.....	56 50	.....	.....
(c) Slash .....	.....	.....	.....	.....	.....
(d) Other classes of land	200 00	.....	.....	.....	.....
(e) Forest products .....	.....	.....	.....	.....	.....
(f) Other property	8 00	.....	.....	.....	.....
(g) Total	\$6,408 00	.....	\$126 50	.....	\$6,534 50
(c) Fires of Unknown Origin:					
1. Total number reported	12	6	9	1	28
2. Areas burned (acres):—					
(a) Young forest growth	247	129½	11	.....	.....
(b) Timber land	1,500½	.....	.....	.....	.....
(c) Slash or old burn	910	¾	.....	300	.....
(d) Other classes of land .....	.....	5½	10½	.....	.....
(e) Total	2,657½	135½	21½	300	3,114½

STATISTICAL REPORT OF RAILWAY FIRES IN ONTARIO, 1915, FOR THOSE LINES UNDER
JURISDICTION OF BOARD OF RAILWAY COMMISSIONERS FOR CANADA, ORDER 107.

	C. N. R.	G. T. R.	C. P. R.	A. C.	Totals
3. Value of property destroyed:					
(a) Young forest growth	\$12 50	\$252 00	.....	.....	.....
(b) Standing timber	12,002 00	.....	.....	.....	.....
(c) Slash . . . . .	.....	.....	.....	.....	.....
(d) Other classes of land . . . . .	.....	.....	.....	.....	.....
(e) Forest products . . . . .	.....	2,488 16	\$5,000 00	.....	.....
(f) Other property	2,300 00	25 00	7,600 00	850	.....
(g) Total	14,314 50	\$2,765 16	12,600 00	850	\$30,529 66
(d) Grand Total:					
1. Total number of fires	50	14	41	5	110 00
2. Areas burned (acres):					
(a) Young forest growth	1,530	2,191 $\frac{1}{2}$	813 $\frac{1}{2}$	.....	4,535
(b) Timber land	1,928 $\frac{1}{2}$	5	43	.....	1,976 $\frac{1}{2}$
(c) Slash or old burn	2,262 $\frac{1}{2}$	80 $\frac{3}{4}$	333	927	3,603 $\frac{1}{4}$
(d) Other classes of land	223 $\frac{1}{4}$	5 $\frac{3}{4}$	17 $\frac{1}{4}$	.....	246 $\frac{1}{4}$
(e) Total	5,944 $\frac{1}{4}$	2,283	1,206 $\frac{3}{4}$	927	10,361 acres
3. Value of property destroyed:					
(a) Young forest growth	\$512 50	\$679 00	\$170 00	.....	\$1,361 50
(b) Standing timber	17,702 00	10 00	56 50	.....	17,768 50
(c) Slash . . . . .	.....	.....	150 00	.....	150 00
(d) Other classes of land	200 00	.....	.....	.....	200 00
(e) Forest products	1,580 00	2,562 16	5,411 25	.....	9,553 41
(f) Other property	3,102 00	635 00	7,600 00	850	12,187 00
(g) Total	23,096 50	\$3,886 16	13,387 75	850	41,220 41

Notice that the statistical report takes into account all fires originating upon a zone six hundred feet in width, that is, we receive reports upon all fires originating within three hundred feet of the railway track. (See Order 107, Sec. 13, Subsec. E.)

Fifty-nine fires were of known railway causes, doing a total damage of \$4,156.25.

Twenty-three fires were of known origin other than railway cause, doing a total damage of \$6,534.50.

Twenty-eight fires were of unknown origin, doing a damage of \$30,529.66:

This gives a total of 110 fires originating within the six hundred foot zone and a total damage of \$41,220.41.

In the values assessed for fire loss in the above report, no estimate is placed upon soil injury which in many cases is the most serious and permanent loss.

In justice to the railways, I wish to point out that two of the serious fires, namely, the \$7,600 and the \$5,000 fire occurring along the Canadian Pacific Railway were of unknown origin. The \$7,600 fire was a saw-mill and the \$5,000 fire was cord wood piled along the right-of-way. Neither of these fires can be classed as forest fires.

In addition to fires given in the above statistical report our Inspectors reported thirty-six fires which came into the railway zone from outside. The bulk of these were caused by settlers starting fires in a dangerous season and not con-

trolling them. Our Inspectors are instructed to keep a record of these outside fires so that they cannot be confused with fire originating within the railway zone.

Two serious problems confront us in the development of this work, namely:—

The lack of control of settlers' fires.

The condition of the territory adjacent to the railway right-of-way.

The Board of Railway Commissioners is insisting upon the railways cleaning the right-of-way of all inflammable material, yet in many districts fire traps exist in close proximity to the boundary. Some effort should be made to compel adjacent owners to assist in cleaning a protective belt outside the right-of-way. No matter how clean a right-of-way may be kept it will be a physical impossibility to prevent forest fires when fire hazards exist just outside the railway right-of-way.

In many cases small right-of-way fires could be reached and put out in time if it were not for the fire hazards adjoining the right-of-way.

We recognize that the past season was not an extremely bad fire season, owing to the large amount of rainfall. However, with the perfecting of railway fire protective organizations, forest fire loss, such as existed in years past, should be largely eliminated.

Respectfully submitted,

E. J. ZAVITZ,

Forester.

Minister of Lands, Forests and Mines.
Ontario.

REPORT

OF THE

Minister of Lands, Forests and Mines

OF THE

PROVINCE OF ONTARIO

For the Year Ending 31st October

1916

PRINTED BY ORDER OF
THE LEGISLATIVE ASSEMBLY OF ONTARIO



TORONTO:

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1917

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Report of the Minister of Lands, Forests and Mines of the Province of Ontario

For the Year Ending 31st October, 1916

To His Honour the Lieutenant-Governor of the Province of Ontario.

MAY IT PLEASE YOUR HONOUR:

I have the honour to submit for the information of your Honour and the Legislative Assembly a report for the fiscal year ending 31st October, 1916, of the management of the Crown Lands of the Province.

CLERGY LANDS.

The collection on account of Clergy Lands was \$1,692.32. No land was disposed of during the year. (See Appendix No. 3, page 8.)

COMMON SCHOOL LANDS.

The area sold during the year was 50 acres. The collection on account of those and former sales was \$3,760.48. (See Appendix No. 3, page 8.)

UNIVERSITY LANDS.

The area of these lands sold during the year was 2,967.50 acres for \$1,483.75. The collection on account of these and former sales was \$1,518.51. (See Appendix No. 3, page 8.)

CROWN LANDS.

There was sold during the year for agricultural and town site areas 98,209.02 acres for \$66,815.98. The collection on account of these and former sales was \$83,533.03. There was sold for mining purposes 14,592.11 acres for \$37,756.28. There was collected on account of these and former sales \$36,457.56.

There was leased for mining purposes 5,858.04 acres for \$5,858.04. There was collected on account of these leases and those of former years \$16,218.36. There was leased of Crown lands an area of 11,689 acres for \$1,170.87. There was collected on account of these and the leases of former years \$50,756.43.

The total area of Crown lands disposed of by sale and lease during the year was 133,447.01 acres for a value of \$113,397.18, as compared with 174,199 acres sold and leased in 1914 for \$134,433. The total collection on account of the sales, leases, etc., was \$194,057.82. (See Appendix No. 3, page 8.)

SALES.

Under Part 1 of the *Public Lands Act*, 98,209 acres were sold for farming during the year as compared with 146,307.19 acres for 1915, a very appreciable decrease, but one not altogether unexpected in view of disturbed economic labour and immigration conditions due to the war. During 1915 in the Temiskaming and Hearst Section of Northern Ontario 889 persons purchased farms, while for the past year only 641 settlers secured holdings, or an average for the two war years of 765, whereas the average for the two years prior, 1913 and 1914, part of which was covered by the early stages of the war, was nearly 200 greater.

The reduction in the last two years is largely, if not wholly, attributed to the above-mentioned conditions occasioned by the war, a large percentage of those whom we would expect to settle having enlisted for active service. Already over 400 actual settlers have requested and been granted protection by virtue of their enlistment, and no doubt others have donned the khaki without taking the necessary precautions to advise the Department, but careful enquiries are made if a question arises as to the possibility of a land holder being a soldier when his claim is sought to be cancelled.

RANCHING LEASES, ETC.

Throughout the year many enquiries have been made as to the ranching business which the Department is endeavouring to encourage on those areas of land that have been partly burnt over, denuded of the timber and untillable in the general acceptance of the term. Large tracts of such areas exist in different parts of the Province, both in Old and New Ontario, where the land is hilly and broken with intervening valleys producing excellent fodder. Practically the entire Trent Valley section or that region between Lake Ontario and Georgian Bay lying in a north-westerly line consists of tracts of land that have lain waste for years and only await the arrival of a practical cattle or sheep raising man.

Four ranching leases were issued during the year, the lessees being required to put on and maintain a certain number of head of stock, cattle or sheep, or both, the number determinable by the size and capabilities of the land. Rentals are at the rate of 5 cents an acre per annum and a short or long term lease of 7 to 21 years with reasonable conditions prevails. The success attained by some ranchers within the last three years has urged others to promote the cause and is sufficient to justify the belief that ranching on Crown Lands in the Province, now in its infancy, will grow to large proportions.

There were in addition to the four leases above mentioned fourteen Crown Leases issued during the year for various purposes such as mining, water lots, church sites, water powers, etc.

Licenses of Occupation to the number of 42 were issued, the majority for mining purposes, while seven of them covered water lots and three lumbering operations.

The long established system of dealing with water lot applications has been materially changed, and now preparatory to treating such cases an official inspection and a careful valuation is made, the report of the engineer being the basis upon which the Department acts as to leasing, granting or issuing Licenses of Occupation. The departure has already considerably augmented the public revenues.

FREE GRANTS.

During the fiscal year ending October 31st, 1916, locations of Free Grant land were carried out to only 620 persons as against 1,355 persons for the preceding year, while 155 persons purchased land in Free Grant territory as against 200 for the year ending 31st October, 1915.

Permission was granted to 232 locatees to assign their locations, the new parties being required to meet all the requirements incidental to the issue of patents.

The total area allotted to the 775 Free Grant settlers was 90,330 acres, or less than one-half the aggregate for the previous year.

Patents issued to 421 Free Grant settlers who satisfied the requirements of building, residence, clearing and cultivation.

An analysis of this year's work with that of last year reveals the fact that the important falling off of locations is in the newer parts of the Province. The Port Arthur section alone dropped from 301 locatees to 119, of whom 39 were assignees of former locatees. Rainy River and Kenora Districts furnished only about one-half that of last year, while noticeable reductions are also found in Sudbury and Nipissing Districts.

The Free Grant sections of Old Ontario have likewise experienced a decided lull in homesteading. The office of the Crown Land Agent at Warren, in the Sudbury District was closed and a new agency established at Markstay for the same townships, the latter place being deemed more convenient. Blezard Valley Agency was also closed, the necessity for its continuance being obviated by reason of practically all the land being granted. For the purpose of meeting the occasional demands of settlers in this section the townships forming such agency were transferred to Sudbury where they are now handled by the local agent.

These figures are the lowest that have obtained in Free Grant transactions for many years, and though the difference between this year and former years is quite noticeable the reasons are more or less obvious. With the exception of two additional concessions in the townships of Gorham and Ware in the Thunder Bay district no new lands were placed during the year under the operation of the Free Grant Section of the Public Lands Act, and as by far the greater percentage of the arable areas of townships at present open have been disposed of by location or otherwise, the opportunities for selection are not so wide. Again the general publicity and attention given to the Great Clay Belt in the Temiskaming district where there are no Free Grant areas has detracted from Free Grant sections that might otherwise be sought by prospective settlers. Besides, several townships in the Sudbury district were withdrawn from settlement by reason of their proximity to the roasting beds of the Copper Company, the Department not desiring to encourage settlement on lands where clearance and crops might be imperilled by sulphur smoke.

Finally the continuous call to arms and the ready answer by many settlers and would-be land takers, together with the effects of the great war upon immigration, has had disastrous effects upon the numbers seeking and securing free homesteads.

MILITARY GRANTS.

The total number of Military Certificates issued to date, under the Veterans Land Grant Act, 1 Edw. VII, Cap. 6, and amendments thereto, is 13,998. During the year 57 letters were received from men or from the next of kin of veterans who had served on the frontier during the Fenian Raid, but had only now heard of this

grant and asked for application forms. As the time for receiving these applications expired on 30th September, 1908, these application forms could not be sent to them.

During the year there have been 76 certificates located covering 12,018 acres in the townships open for veterans, making in all a total of 8,174 certificates located.

There were 12 certificates surrendered to the Crown for the \$50.00 commutation money, this makes a total of 3,254 certificates surrendered.

In 18 cases the certificates have been surrendered and applied in payment of lands purchased from the Crown, covering in all 2,736 acres, making a total of 760 certificates that have been applied in this manner.

During the year there have been 132 patents issued for lands located by veterans, making a total of 7,064 thus disposed of.

The total number, therefore, of certificates that have now been redeemed is 12,251, leaving 1,747 still outstanding.

Under the Act 1st Edw. VII, Cap. 6, and amendments thereto covering these grants it is necessary for all locatees of the lands granted under this Act to apply for their patents for such land before ten years have expired from date of location. If this application for patent is not made within the ten years then the land comes under the settlement regulations, and unless the settlement duties are proceeded with, the locations are liable to cancellation. Previous to the expiration of the ten years after location, the Department has sent a notice to each veteran who should apply for his patent stating this fact, and in this manner have saved many of the locations from becoming subject to the settlement duties. See Appendix No. 11, page 37.

FINANCIAL AID TO SETTLERS.

Under the Legislation passed at the Session of 1916, a Settlers' Loan Commission was appointed.

The Loan Commissioner will have available, out of the Northern Ontario Development Fund, money to advance to settlers on the land, chattels and crops. The loan will bear a low rate of interest and the patent to the land will be held as final security.

Applicants for loans will deal directly with the Loan Commissioner thus avoiding delay and expense. The appointment of the Loan Commissioner was made in time, and the office sufficiently organized, to render useful and satisfactory service to many who suffered in the recent disastrous fire in Northern Ontario. One hundred thousand dollars was set aside out of the fund to assist settlers. The full weight of this tragedy was hardly realized in the older portions of the Province. The call for help that came from the north was insistent, but the response was ready. Trains were despatched from North Bay carrying doctors, nurses, medical supplies, food and clothing. Once the physical wants of the people were cared for the problem of re-habilitating the district, and preventing a recurrence of the horror, was taken up. The Loan Commissioner was able, with the money placed at his disposal, to co-operate with the Department in securing supplies of lumber and other necessities to enable the settlers to build homes against the coming winter.

During the period from August 12th to October 31st, 1916, 606 applications for loans were received covering an aggregate amount of \$230,800.

Owing to conditions existing in the district of Temiskaming, caused by the disastrous fires, every effort was made to grant as much assistance as possible to

those desiring loans in that district, and after inspections had been made 121 loans were granted amounting to \$36,525.

Consideration is now being devoted to all other districts, and from the number of applications received since the Act has been put into effect it would appear that the settlers generally are desirous of taking advantage of the opportunity presented to secure funds for a further improvement of their farms.

For particulars of applications and the distributing of loans, see Appendix No. 32, page No. 93.

THE MINING INDUSTRY.

The Bureau of Mines has collected returns from the metalliferous mines and works of Ontario showing the production for the nine months ending 30th September, 1916. Following are the figures for the period, and for purposes of comparison, figures for the corresponding period of last year. It will be noted that there has been a large increase in the aggregate value, and also in the value of nearly all the individual products, due to causes mentioned in the notes appended.

SUMMARY OF MINERAL PRODUCTION FIRST NINE MONTHS OF 1916.

Product.	Quantity.		Value.	
	1915	1916	1915	1916
Cobalt ore, tons.....	92	98	\$12,472	\$10,591
" oxide, lbs.....	135,337	378,732	107,363	231,947
" metallic, lbs.....	76,979	172,055	66,552	146,467
Cobalt and nickle oxides (unseparated), lbs.	2,501	57,026	500	22,890
Copper ore, tons.....	.....	1,715	.....	21,685
" in matte, tons.....	14,057	16,989	2,024,658	6,285,930
Gold, ounces.....	281,712	363,955	5,826,941	7,513,734
Iron ore, tons.....	302,586	271,034	601,044	673,170
Molybdenite (concentrates), lbs.....	.....	15,845	.....	15,845
Nickel, oxide, lbs.....	142,483	5,152	16,085	6,381
" metallic, lbs.....	11,905	17,435	4,762	7,618
" in matte, tons.....	24,054	31,046	5,369,536	15,523,000
Pig iron, tons.....	354,153	501,410	4,510,906	6,686,965
Silver, ounces.....	17,178,629	16,203,091	8,030,469	9,750,040

Cobalt.—The silver mines of the Cobalt district have definitely established their supremacy of the sources of the world's supply of this mineral. Notwithstanding the war, which has closed the European markets, the shipments of cobalt oxides were much greater, both in quantity and value than in the first nine months of 1915. It will be observed that metallic cobalt is assuming an important place in the list. This is mainly due to its use in the manufacture of special alloys, principally stellite, for high speed tools. Stellite is made of cobalt, chromium and tungsten, and is finding a good demand from munition makers and other workers of modern hard steels.

Copper.—The extraordinary rise in the price of copper, which averaged 27 cents per pound in New York during the nine months, has brought about the opening of several deposits of copper ore chiefly west of Lake Superior, from which shipments have been made to British Columbia smelters. The principal of these mines

is the Tip Top; another at Mine Centre has lately been sending forward to B. C. a carload of ore daily. The price received by the shippers has averaged 18.5 cents per pound for the copper contents. This figure has also been applied to the copper contained in the heavy shipments of matte from the Sudbury nickel-copper mines, and a considerable part of the increase in value of the copper reported is due to the higher valuation, although the quantity shipped was also greater by 20 per cent.

Gold.—The output from the mines of Northern Ontario is steadily increasing, being 28 per cent. in excess of that for the nine months of 1915. Hollinger Consolidated continues to be the chief producer, accounting for 47 per cent. of the total. Dome followed with 21 per cent., and McIntyre-Porcupine with 10 per cent. The other considerable contributors in this camp are Porcupine Crown, Schumacher, Vipond, and Jupiter, which together furnished 5.5 per cent. Outside of Porcupine proper, Tough-Oakes yielded \$519,149; Canadian Exploration, Croesus and a small output from Dome Lake amounted to over one-quarter of a million dollars. At Teek-Hughes (Kirkland Lake) the mine has been developed and a mill built which will be put in operation as soon as the power transmission line now being erected from Cobalt has been completed. Other prospects here, the Lake Shore, Wright-Hargrave, Kirkland Lake Gold Mines, La Belle-Kirkland and Sylvanite are also being developed. This is a promising camp. In Gauthier township the Huronian mine is being worked under a lease. Several discoveries of gold were made during the summer in Benoit township, but there has not been time to prove their value. At Tashota, the Tash-Orn Company has bought the Wells claim and has put in machinery to give it a thorough test. This company is also working the King-Dodds claims. A diamond drill has been operated on the Devanney, Reamsbottom and Clive claims.

Molybdenite.—There is a demand in Britain for making tool-steel, and several deposits of the ore in Eastern Ontario have been opened and are being worked. There are dressing plants at Renfrew and Ottawa, the latter operated by the Dominion Mines Department. Ferro-molybdenum is also being made at Orillia and Belleville. The supply of molybdenite throughout the British Empire has been reserved as a war measure and a price of 105 shillings per unit fixed for concentrates delivered at Liverpool. This approximates \$1.00 per pound here.

Nickel.—The Canadian Copper Company and the Mond Nickel Company have been working their mines and smelters at maximum capacity, and the output of nickel, contained in the matte product of the furnaces, for the nine months falls little short of that for the full year 1915. The production for 1916 will probably exceed the production of 1915 by 20 per cent. The valuation of the nickel in the matte has been increased from about 11 cents per pound (the figure adopted by the mining companies) in 1915 to 25 cents per pound in 1916. Nickel refineries are to be erected in Ontario by the International Nickel Company and the British American Nickel Corporation, the latter of which is developing the Murray mine. Small quantities of metallic nickel are being produced from Cobalt ores by the Deloro Smelting and Refining Company.

Iron.—The whole production of iron ore was from the Helen and Magpie mines of the Algoma Steel Corporation. At the latter the ore (siderite) is roasted previous to shipment. Four blast furnace companies at Port Colborne, Sault Ste

Marie, Deseronto and Hamilton, respectively, produced pig iron in quantity 41 per cent., and in value 48 per cent. greater than in the corresponding period of 1915.

Silver.—The mines at Cobalt continue to produce, though on a slowly diminishing scale. The number of fine ounces contained in the shipments of the nine months was 975,538 below the record for the same period of last year, but owing to the much higher prices that have prevailed for silver the return of the mining companies was \$1,719,571 greater. Silver started the year at 56.76 cents per ounce and rose to a maximum in May of 74.27 cents, when it receded to 63.06 in July, reaching 68.51 cents again in September. In 1915, the monthly average was 49.75 cents per ounce. Nipissing still leads in production, Mining Corporation coming next, followed by Kerr Lake, Coniagas, McKinley-Darragh-Savage, Seneca-Superior, Temiskaming, etc. The flotation process is likely to assist materially in increasing the production of silver at Cobalt. It has been introduced at the Buffalo mine, where it is treating successfully low-grade tailings containing 5 or 6 ounces per ton. From the gold ores treated during the period 66,347 ounces of silver were obtained, and from the copper ores 607 ounces.

COLLECTIONS.

The total revenue of the Department from all sources was \$1,860,557.37. Of this \$83,555.03 came from agricultural lands and town sites; mining lands \$36,578.69; mining and crown leases \$66,974.79; miners' licenses, permits and recording fees \$66,906.98; royalties \$15,083.52; supplementary revenue tax \$186,827.12. From woods and forests the revenue was \$1,335,320.78 made up of the following items, bonus \$419,827.94; timber dues \$822,332.81; ground rent \$89,520.03; transfer fees \$3,640.00. (See Appendix No. 4, page 9.)

DISBURSEMENTS.

The total expenditure of the Department for ordinary services was \$627,347.95. Some of the principal items were: Agents' salaries and disbursements \$17,251.77; homestead inspectors \$12,593.23; Crown timber agents \$29,402.13; wood ranging and estimation of timber \$166,197.58; fire ranging \$111,118.20; forest reserves, fire ranging, etc., Temagami reserve \$37,789.21, Metagami reserve \$7,936.76; Mississauga reserve \$18,722.89; Nipigon reserve \$18,881.24; Eastern reserve \$2,804.68; Sibley reserve \$832.50; mines and mining \$51,524.01; mining recorders \$24,000.43; surveys \$63,884.33; contingencies, lands and forests \$28,679.47; bureau of mines \$12,085.06.

A further sum of \$111,171.05 was expended under the direction of the Department, distributed as follows: Algonquin Park \$35,473.13; Quetico Provincial Park \$11,268.87; expenditures under Bounty Act, 7 Edward VII, cap. 14, \$25,550.91; Veteran's Commutation \$600.00; Royal Nickel Commission \$37,578.14. (See Appendices Nos. 6 and 7, pages 11 and 33.)

WOODS AND FORESTS.

The revenue accrued from woods and forests for the year ending 31st October, 1916, was \$1,405,425.06, which was \$224,224.54 less than that of the preceding year.

The revenue collected amounted to \$1,335,320.78, a decrease of \$192,784.04, as compared with the year ending 31st October, 1915.

This decrease is directly attributable to the war. The number of men enlisting for overseas service rendered it difficult for the lumber companies to properly man their camps, and the cessation to a very great extent of building operations greatly lessened the demand for lumber.

In only one respect did the quantity taken out compare with that of the previous season, 738,597 railway ties being taken out, which was 9,433 in excess of the number for 1914-15.

The production of pine timber, saw logs, square timber, etc., was 307,826,365 feet board measure, a decrease of 100,000,000 feet board measure from quantity produced last year. Timber other than pine also shows a considerable falling off, 38,906,200 feet board measure being taken out as against 59,308,403 feet board measure for season 1914-15.

The quantity of pulpwood taken off Crown lands was 169,513 cords, or 131,443 cords less than last season, but nearly 65,000 cords more than was cut during season 1913-14.

There is already apparent an increased demand for nearly all classes of timber, and the output for 1917 it is confidently expected will show a substantial increase over that for the past season.

The shortage of cars and consequent difficulty in securing coal has greatly increased the demand for cordwood for fuel purposes, and this will enable settlers to derive considerable revenue from the wood upon their lands.

The available supply of pulpwood in the United States is nearly exhausted and this has led to constant inquiries being made with respect to pulp bearing lands in the Province of Ontario. Inquiries have been received from several European countries as well as from all sections of the Republic to the south.

Two areas have recently been offered for sale by public competition. These areas are known as the Pic River Pulp and Timber Limit and the Black Sturgeon Pulp and Timber Limit.

The pulp companies already in operation have recently added additional units to their plant and are prepared to purchase from settlers in order to insure sufficient pulpwood for their mill.

SOURCES OF REVENUE.

The \$1,355,320.78 collected during the year ending October 31st, 1916, was made up as follows:

Timber Dues	\$822,332 81
Bonus.....	337,972 94
Ground Rent.....	89,520 03
Transfer Fee.....	3,640 00
Deposit on Timber Sales.....	81,855 00
	<hr/>
	\$1,355,320 78

LANDS UNDER LICENSE.

The area under license last year was 15,712 $\frac{1}{4}$ square miles, which is one-half square mile more than the area under license the previous year, that is to say, the new licenses issued represent an area equal in extent to the sum of the areas dropped from license.

The area under license varies from year to year for the following reasons:

1. License does not issue because of the failure of the licensee to pay timber dues owing on timber cut under authority of a license.
2. Nonpayment of ground rent. .
3. Areas that have been cut over are dropped from the license.

CULLERS' EXAMINATIONS.

Two Cullers' Examinations were held during the year, one at North Bay and one at Kenora. Six candidates succeeded in passing the examination and were duly granted certificates authorizing them to act as Cullers.

(For complete list of licensed cullers see Appendix 12, page 38.)

ONTARIO PULP WOOD INDUSTRY.

The wood used in the manufacture of pulp has shown substantial increases in the Province. The 1913 production was worth \$4,107,689, increasing in 1914 to a value of \$4,148,405, and keeping ahead of the four million mark in 1915 with a production worth, approximately, \$4,500,000. The production of wood used in the manufacture of pulp in three years in the Province of Ontario produced a value of, approximately, \$12,500,000. While five of our Provinces contributed to the output of pulpwood in 1915 over 50 per cent. of the total Canadian production was in this Province.

The newspaper industry is occupying the centre of the stage and is consequently responsible for the great activity in the pulp mills of the Province. While no complete statistics have been gathered to trace with real certainty the cause of high prices the unprecedented demand for paper continues to raise prices to the small consumers which seems to indicate the existence of an actual shortage. The mills are unable to promise dates of delivery and are not taking orders for months ahead.

ONTARIO PULP WOOD PRODUCTION.

The following chart shows the value of the wood used in the manufacture of pulp and paper in the Province of Ontario, also the pulp produced, in accompanying table:

1912,	Tons	173,903,	Value	\$1,235,343
1913,	Tons	321,244,	" "	2,297,389
1914,	Tons	477,751,	" "	3,172,235
1915,	Estimate	500,000,	" "	4,200,000

FIRE RANGING.

During the month of May and first three weeks of June, 1916, rain fell almost daily. So much water fell during this period that the ground was thoroughly saturated and no danger from fire was possible, but the last week of June the

weather became extremely hot and intense heat prevailed all through July and for the greater part of August, causing everything to become dry as tinder. The settlers who had been prevented by the frequent rain from burning the brush now availed themselves of the changed conditions and began to set out fires to clear their lands. For a couple of weeks all went well, but during the last few days of July violent winds sprung up in the Temiskaming district, fanning the individual fires, driving them beyond control, uniting them into one seething caldron of flame. The loss of life and damage to property makes this the most terrible and deplorable fire in the history of the Province. A more detailed account of this fire will be found elsewhere in this report.

In the early part of August fires were reported from almost every part of Northern Ontario, but in no other case were they attended by loss of life. Although some valuable timber was damaged in different sections of the Province, for the most part the fires were kept confined to certain well defined areas by the well directed efforts of the ranging staff. Too much credit cannot be given to the men who in some cases kept up the fight for several days and nights, and finally found their efforts crowned by success.

The fires occasioning the greatest damage to timber were in the townships of Gooderham, Notman, Janes, Dana, McNeish, Pardoe, Cotton, Howey, Grigg, Beardsford, Sweeney, Frechette and Valin.

Where the damaged area was under license the timber damaged by fire will be cut and removed by the licensee this season.

Where the areas were not already under license sales were affected, the purchasers agreeing to remove the damaged timber this winter. The prices obtained for the damaged timber in these sales were better than might reasonably have been anticipated.

Some 1,804 fires in all were reported during the season, but only in the case of 125 were they attended by any damage to timber, the balance being put out by the rangers before they had an opportunity to spread.

Nearly 50 per cent of the fires were said to be caused by railway engines, but very few of these fires occasioned any damage. It is only fair to state that the railways are co-operating whole-heartedly with the Department in its efforts for the protection of the forests wealth of the Province.

Next to the railway engines the cause of the greatest number of fires is given as settlers clearing lands. These fires occasion the greatest damage as the clearing is generally contiguous to standing timber and plenty of material is at hand to feed the flames and cause them to spread. The other causes of fires given are lightning, campers, berry pickers, tourists, smokers and road construction.

There were 474 men on duty on Crown Lands during the fire ranging season of 1916, distributed as follows:

Forest reserves, 186; railways, 127; Crown Lands, 115. These men were under the direct supervision of 19 chief rangers and 7 deputy chief rangers. There were also 12 inspectors on railways, 8 supervisors on lands under license.

FOREST RESERVES.

Temagami Forest Reserve was patrolled by 113 rangers last season, under the direction of four chief rangers and one deputy.

Missassaga Reserve had a staff of 48 rangers under the supervision of a chief ranger and three deputies.

Nepigon Reserve had 17 rangers on duty under one chief. There were in addition a staff of 17 men in the Kowkash Mining District.

Eastern and Sibley Reserves had the usual staff of rangers.

The cost of patrol in the forest reserves was \$86,966.78.

RAILWAYS.

One hundred and twenty-seven men under six chief rangers and a deputy chief ranger patrolled the T. & N. O. and Canadian Government railways, there being 62 on the T. & N. O. and 65 on the Transcontinental, including 8 men on the Superior Junction branch.

All other railways were under the jurisdiction of the Dominion Railway Board and were responsible for fire protection along their lines. The Department appointed 12 inspectors to see that the regulations of the Board were carried out. The cost of railway patrol was \$60,274.00. The cost of fire ranging on Crown Lands other than railways and reserves was \$50,842.22.

The number of rangers on licensed lands was 290. The approximate cost of fire ranging would be \$75,000.00. This is borne by the licensees who are responsible for fire protection in connection with their limits.

SUMMARY OF COST

Cost of Patrol, Railways and Crown Lands	\$111,118 23	
Forest Reserves	86,966 78	
		<hr/>
" " Licenses Lands (Approximate)		\$198,085 00
		75,000 00

The rangers on railways are furnished with velocipedes, 73 being in use last season, 3 of them motor speeders. Canoes are provided for rangers in the reserves and wherever their use could be of any assistance. Seven gasoline launches were used in the fire protection service, and on one of them the Department, last season, installed a pump which rendered excellent service.

The different fire ranging camps in the Nepigon Forest Reserve are connected with each other and with headquarters by telephone, some 125 miles of phone service being in operation. This phone service has been in operation several seasons and has proved of great value, fully justifying the expense incurred in its establishment.

FOREST FIRES IN JULY-AUGUST.

On the 29th of July last, and the week following, a very destructive forest fire swept over the country in the vicinity of Matheson and Cochrane. It extended in a north-westerly direction along the Temiskaming and Northern Ontario Railway, through the townships of Bowman, Carr, Taylor, Walker, and part of Clergue, to Iroquois Falls Jet., and easterly, north-easterly and southerly through the townships of Hislop, Beatty, Munro, and other townships in part to the Abitibi river.

The fire destroyed nearly all the culverts, corduroy roads and small bridges built in previous years on the territory swept over, and several of the large bridges.

The fire extended easterly along the Porcupine Branch of the T. & N. O. Rly. to the Abitibi river, burning practically everything in its course—settlers' homes

and crops, part of the plant of the Abitibi Pulp and Paper Co., and part of the town of Iroquois Falls.

The weather for three weeks previous to the 29th of July had been extremely hot and dry, with high winds. The fire started at almost every point of the compass—in the settlers' clearings, and cut over pulp lands—in many places started from unknown causes, in most instances, however, where settlers had been burning off new clearings. The townships around Matheson, although partly burned over on three previous occasions, were again fire swept. Farm buildings and crops were completely destroyed, but the saddest part of all was the great loss of life. The fires and storms of previous years had levelled down the large timber, forming wind-falls around the swamps. The flames swept from one farm clearing to another; fields of grain and swamps formed no barriers or protection. Township after town-



The Town of Matheson after the fire of July, 1916.

ship was burned over and even the virgin forest in places was left practically ready for the plow.

This fire burned on both sides of the T. & N. O. Rly., from Ramore, south to Matheson, north to Porquois Jct., and on both banks of the Black river, completely destroying the villages of Kelso, Nushka, part of Porquois Jct., part of Iroquois Falls, the town of Matheson, the business part of Cochrane, and nearly all the culverts, corduroy and small bridges on the trunk roads.

While this fire was burning a fire of less magnitude was burning around the town of Cochrane. It started near the south-west end of the town where settlers had been burning off their old fallows a few days previous. Every effort was made by the citizens of Cochrane and the fire brigade to extinguish this fire, but without avail. The business portion of the town was completely destroyed. The fire, however, did not extend far beyond the limits of the town. Numerous small fires

started at different points from unknown causes—chiefly, however, from settlers burning off their fallows—extended as far west along the Grand Trunk Pacific Rly. as the Frederickhouse river, as far east as the Abitibi river, and north about ten miles through part of the townships of Glackmeyer and Clute. Beyond the limits of the town of Cochrane a large number of settlers lost their buildings and crops; nearly all the culverts, corduroy roads and small bridges were burned. These fires swept over the country with great energy; it was almost impossible to save buildings or crops. The dry moss on the partially cleared lands and the debris left by the settlers when taking out pulpwood, carried the fires from point to point. Ten persons were burned to death a few miles north of Cochrane when attempting to reach a small lake.

Fires were started at different points along the Transcontinental as far west as



View of the fire-swept territory near Matheson the day following the fire, July, 1916.

Hearst (130 miles from Cochrane), started in most instances from settlers clearing their land. Several homesteads were burned out but no lives lost. These fires cleared up large areas of land and were in many instances of very great assistance to the settlers. Clearings were made which would have taken the settlers years to accomplish. In the vicinity of Hearst, along the line of railway, several culverts and small bridges were burned on roads lately constructed by this branch. As soon as the fire passed over immediate steps were taken to replace the culverts and bridges and remove the burned corduroy and regrade the roads.

In the vicinity of Matheson and Cochrane much of the available timber suitable for culverts and bridges was destroyed. Corrugated iron culverts had to be secured; one hundred of these have already been put in places and several of the smaller bridges on the more important roads renewed.

The store-houses and office of the Northern Development Branch were completely destroyed at Matheson, also part of the plant; the same at Cochrane with the exception of the office. Fortunately most of the plant was in use at the different outside camps and was not destroyed. The buildings were insured and the loss is not very great.

It will take some time, however, to put these roads in as good condition as they were before the fire. The fire, while it has destroyed many miles of corduroy road, will greatly assist in drainage in the future, having burnt off the moss on the surface which held the frost in the early spring. In this respect it will greatly improve the climatic conditions of the country besides clearing the land.

The intense heat and strong winds the last few days of July made it almost impossible to extinguish the settlers' fires, which had been burning for several days previous. Large sections of country in places have been almost completely denuded of timber and made ready for the plow. The total area burned over has, however, been much exaggerated.

This fire, had it not been for the tremendous loss of life, would not compare in magnitude with many fires that have taken place in the Province within the last fifty years. The fire of 1864, and later in '71, along the north shore of Lakes Superior and Huron, and that of '77 in the Parry Sound district, and that of '91 and '96 in the pine country west and north-west of Sudbury, were far more destructive from a financial standpoint than the recent fire at Matheson and Cochrane. Each covered a much greater area and destroyed greater values in timber. A much later fire, that of 1894, which swept over a large section of Northern Minnesota and crossed the Rainy river into the Rainy river Valley at Boudet, in which fire 140 lives were lost, six of them in the Rainy River Valley, it swept over several townships in the valley. This fire was in many respects similar to the Matheson and Cochrane fire; the country swept over was low and swampy, and at that time considered unfit for settlement. Much of it is now under cultivation and is considered one of the best agricultural sections in Northern Ontario.

Previous to and during the fire every assistance was given by the employees of the Northern Development Branch and other officials of the Department in putting out fires along the newly constructed roads. No further action on the part of the Government could have saved the situation. Owing to wet weather in previous seasons the settlers had been unable to clear off their land and were anxious to take advantage of every possible opportunity of clearing their lands when the weather was dry, as very little could be accomplished in clearing land of a character similar to that in the Clay Belt except in the dry season.

COLONIZATION.

One of the many important changes made by the Government was the transfer of the Colonization Branch from the Department of Agriculture to this Department.

The work of the Branch is largely that of promoting and directing settlement, although it has been successful, in recent years, in bringing a large number of domestic servants and farm labourers to Ontario.

Settlement in Northern Ontario has been almost completely arrested by the war, and the drain of men from farms and industries has rendered an acute labour situation.

It was foreseen that this was inevitable and will continue until the war is over and the men are released at the front. To prepare for this time and ensure that Ontario will receive a fair proportion of the exodus after the war is a problem to which the Colonization Branch is devoting careful and expert study.

For particulars and report of the colonization and immigration during the year see Appendix 35, page 103.

CROWN SURVEYS.

The following Crown Surveys have been completed during this year:

Township of Owens, district of Timiskaming.

Township of Cody, district of Timiskaming.

Township of Forbes, district of Thunder Bay.

Township of Colenso, district of Kenora.

Township of Nepigon, additional, district of Thunder Bay.

Township of Hele, district of Thunder Bay.

Parts of townships of Hall, Joffre, Carew and Cavell, district of Sudbury.

Addition to the townships of Ware and Gorham, district of Thunder Bay.

Town plots of Grant and Armstrong, district of Thunder Bay.

Survey of tie line Kowkash Mining Division, district of Thunder Bay.

Survey and traverse of Lady Evelyn lake and islands, district of Timiskaming.

Survey and traverse of Peter Long lake, district of Timiskaming.

Survey of timber berths K 23 and 23a, district of Kenora.

Survey of part of Peninsula No. 2, township of Bosanquet, county of Lambton.

See Appendix No. 15, page 56.

For Crown Surveys in progress see Appendix No. 16, page 57.

MUNICIPAL SURVEYS.

Three municipalities petitioned for surveys and instructions were given authorizing the same. Several municipal surveys were confirmed during the year under R.S.O. Cap. 166, Sections 13 and 14, such surveys being final and conclusive.

Particulars relating to these will be found in appendices No. 17 and No. 18, pages No. 58 and No. 59.

The survey of Georgian Bay Islands was completed this year and the reports show that there are some 15,000 islands embraced within this territory. These islands have been placed in the market for disposal at a minimum charge of \$10 per acre, together with a charge of \$25 to cover cost of departmental survey.

To avoid speculation purchasers are required to expend \$300 in improvements within eighteen months from date of sale. The accessibility to these islands by boat or launch has rendered them attractive to tourists.

FILING SYSTEM.

The rapid increase in the volume of correspondence received and dispatched by the Department made it necessary to install a more efficient filing system. On January 1st, 1916, a complete change was effected.

Prior to this date the Department had used the "Folded" or "Document" system. This was found cumbersome, slow and entirely inadequate to meet the requirements of the Department. The files were kept in vaults in the various

branches and considerable time was found to be consumed in locating the various files.

After several months careful consideration and investigation it was decided to adopt the "Vertical" or "Flat File" system, and concentrate the files in one general filing room. These changes have all been effected and are working smoothly and satisfactorily.

For volume of correspondence handled by Record Branch see Appendix No. 13, page No. 50.

G. H. FERGUSON,
Minister.

Department of Lands, Forests and Mines,
Toronto, October 31st, 1916.

APPENDICES

Appendix No. 1.

Return of Officers and Clerks of the Department of Lands, Forests and Mines for the year ending October 31st, 1916.

Branch.	Name.	Designation.	When Appointed.	Salary per annum.	Remarks.
Lands Branch	Hon. G. H. Ferguson	Minister	1914, Dec. 22....	\$ 6,000 00	
	Albert Grigg	Deputy Minister	1915, Oct. 13....	3,600 00	
	Geo. Kennedy	Law Clerk	1872, Feb. 1....	2,900 00	Died June 16, 1916.
	C. C. Hele	Minister's Secretary and Secretary to Department			
	J. Farrington	Clerk	1912, Jan. 23....	2,500 00	
	A. G. Thompson	do	1916, Jan. 6....	1,200 00	
	M. Johnston	Stenographer	1909, Mar. 24....	825 00	
			1915, Oct. 9....	650 00	
	J. J. Murphy	Advisory Chief Clerk	1872, May 1....	2,300 00	
	W. C. Cain	Chief Clerk	1903, Mar. 6....	1,900 00	
	H. E. Johnston	Clerk of Military Grants	1907, Mar. 13....	1,600 00	
	W. R. Ledger	Clerk of Sales	1894, Feb. 5....	1,450 00	
	S. Draper	Clerk of Free grants	1903, Jan. 1....	1,350 00	
	S. A. Platt	Clerk	1907, Mar. 13....	1,100 00	
	F. Lucas	do	1909, Mar. 24....	1,100 00	
	J. E. Drinkwater	do	1916, May 3....	950 00	
	N. MacQueen	Stenographer	1909, Mar. 24....	725 00	
	M. Bengough	do	1896, Oct. 23....	750 00	
	J. C. Oram	do	1907, Jan. 16....	725 00	
	E. F. O'Neil	do	1904, Nov. 9....	725 00	
Surveys and Patents	E. G. Halliday	do	1909, Mar. 24....	725 00	
	B. M. Benson	do	1911, Mar. 3....	625 00	
	E. Hills	do	1916, May 3....	600 00	
	G. B. Kirkpatrick	Director	1866, Jan. 30....	2,700 00	
	L. V. Rorke	Assistant Director	1909, May 5....	2,600 00	
	J. Hutcheon	Surveyor and Draughtsman	1913, May 20....	2,150 00	
	W. F. Lewis	Clerk	1872, Feb. 5....	1,400 00	
	D. G. Boyd	Draughtsman	1897, Sept. 27....	1,650 00	
	E. M. Jarvis	Clerk	1904, Oct. 19....	1,400 00	
	J. B. Proctor	do	1897, Jan. 15....	1,200 00	
	B. Rushford	Draughtsman	1912, Oct. 5....	1,000 00	
	F. E. Blanchet	Clerk	1907, Mar. 13....	1,100 00	
	A. Leaman	do	1909, Mar. 24....	1,100 00	

Surveys and Patents	H. Treeby	Draughtsman	1904, Jan. 13.....	1,250 00
	J. Work	do	1911, Mar. 3.....	1,250 00
	H. M. Kirkland	Stenographer	1904, Nov. 23.....	725 00
	C. O'Connor	do	1911, Mar. 3.....	625 00
	E. C. Armer	do	1911, Mar. 3.....	625 00
	C. S. Jones	Clerk of Patents	1890, May 22.....	2,050 00
	W. S. Sutherland	Engrossing Clerk	1902, Jan. 13.....	1,350 00
	C. E. Burns	Reference Clerk	1900, Apr. 9.....	1,450 00
	W. Carrell	Engrossing Clerk	1904, Jan. 15.....	1,250 00
	A. E. Robillard	do	1894, May 8.....	1,000 00
Woods and Forests	A. E. Roe	Clerk of Registers	1909, Mar. 24.....	1,250 00
	J. A. G. Crozier	Advisory Chief Clerk	1867, Dec. 1.....	2,300 00
	J. J. Houser	Chief Clerk	1907, Mar. 13.....	1,800 00
	J. B. Cook	Clerk	1898, Aug. 1.....	1,750 00
	H. Gillard	do	1900, Apr. 9.....	1,500 00
	F. J. Niven	do	1903, Mar. 6.....	1,350 00
	W. F. Trivett	do	1904, Jan. 13.....	1,300 00
	R. H. Hodgson	do	1904, Nov. 23.....	1,200 00
	A. H. O'Neil	do	1909, Mar. 24.....	1,000 00
	G. W. Harris	do	1909, Mar. 24.....	1,000 00
Accounts	N. L. Rogers	do	1911, Nov. 2.....	1,050 00
	S. D. Meeking	do	1910, May 12.....	900 00
	E. H. Squires	do	1916, Apr. 6.....	960 00
	E. H. Teifer	do	1916, Apr. 6.....	800 00
	C. Rowland	Stenographer	1915, Mar. 23.....	700 00
	W. A. Fleming	do	1915, Feb. 16.....	600 00
	M. E. Bliss	do	1909, Sep. 1.....	775 00
	H. Canton	do	1915, Oct. 9.....	625 00
	D. G. Ross	Accountant	1861, Apr. 15.....	2,550 00
	H. M. Lount	Clerk	1904, Jan. 13.....	1,550 00
Forestry	C. J. Clarke	do	1907, Mar. 13.....	1,150 00
	R. Gordon	do	1913, Apr. 30.....	850 00
	W. A. Burritt	do	1908, Apr. 8.....	1,150 00
	C. Bowland	Clerk and Stenographer	1911, Mar. 3.....	700 00
	F. Yeigh	Registrar	1880, Mar. 1.....	1,600 00
	E. J. Zavitz	Director	1912, Nov. 7.....	2,600 00
	F. S. Newman	Assistant Director	1913, Sep. 22.....	1,600 00
	J. Bald	Stenographer	1914, Oct. 28.....	600 00
			Resigned Aug. 1, 1916.	

Appendix No. 1.—Concluded.

Return of Officers and Clerks of the Department of Lands, Forests and Mines for the year ending October 31st, 1916.

Branch.	Name.	Designation.	When appointed.	Salary per annum.	Remarks.
Colonization	H. A. Macdonell	Director	1912, Feb.	2,350 00	
	John Argue	Clerk	1908, Apr.	1,500 00	
	R. A. Jones	do	1909, Mar.	1,400 00	
	C. W. Garthwaite	do	1910, Nov.	1,100 00	
	H. Tutt	do	1911, Mar.	1,000 00	
	S. O. Dennis	Clerk and Stenographer	1910, Nov.	700 00	
	R. Duggan	Stenographer	1910, Feb.	725 00	
	F. R. Dunlop	do	1912, Dec.	650 00	
Record Branch	B. McDonald	do	1911, Mar.	700 00	
	S. K. Burdin	Chief Clerk	1916, Apr.	2,300 00	
	C. Dies	Clerk	1907, Mar.	1,250 00	
	A. P. Saunders	do	1913, Apr.	1,000 00	
	C. W. St. John	do	1910, Apr.	1,000 00	
	A. Ferguson	do	1916, Apr.	960 00	
	W. B. Baines	do	1912, Oct.	950 00	
	F. Samuels	do	1908, Mar.	925 00	
Bureau of Mines	H. Brophy	Mailing Clerk	1898, Oct.	1,000 00	
	T. W. Gibson	Deputy Minister	1891, June	4,000 00	
	R. D. Fisher	Secretary	1907, Mar.	1,350 00	
	D. H. Barr	Clerk	1907, Mar.	1,150 00	
	F. L. Godson	do	1915, June	900 00	
	W. Lemoine	do	1908, Apr.	1,150 00	
	Anne Moffatt	do	1901, Mar.	1,100 00	
	A. G. Scovell	do	1909, Mar.	1,050 00	
	Ethel Craig	Clerk and Stenographer	1906, May	800 00	
	F. McDougall	do	1907, Mar.	725 00	
	J. L. McNaughton	do	1909, Mar.	750 00	
	H. W. Batchelor	Stenographer	1911, Dec.	650 00	

D. GEO. ROSS,

Accountant.

ALBERT GRIGG,

Deputy Minister of Lands and Forests.

Appendix No. 2.

List of Agents for the year ending October 31st, 1916.

Name.	Post office address	District or County.	Date of appointment.	Salary per annum.	Remarks.
<i>Land Agents.</i>					
Anderson, T. V.	Hearst	Part District of Algoma	1913, May	9	
Arthurs, E.	Espanola Mills... ..	do do	1915, May	7	
Baker, R. H.	Minden	Part of Victoria	1907, Oct.	1	
Bolger, J. W.	New Liskeard	Lake Temiskaming, District of Nipissing ..	1913, July	17	
Both, C.	Denbigh	Part of Frontenac and Addington	1905, Oct.	20	
Brown, John	Markstay	Part of District of Nipissing and Sudbury ..	1916, June	27	
Burrows, W. A.	Port Arthur	Part District of Thunder Bay	1912, Jan.	30	
Byers, R. J.	Massey	do do	1905, July	3	Died March 22nd, 1916.
Cameron, W.	Stratton Station ..	do do	1911, April	27	
Campbell, I. M.	Parry Sound	do do	1914, Nov.	12	
Dempsey, S. J.	Cochrane	do do	1911, Feb.	9	
Dodds, T.	Thessalon	do do	1915, May	4	
Douglas, W. J.	Greenvlew	do Hastings	1912, June	12	
Ellis, H. J.	Powassan	Part District of Parry Sound	1909, May	21	
Fletcher, H. H.	Massey	do do	1916, May	3	
Freeborn, Dr. J. S.	Magnetawan	do do	1905, Nov.	10	
Gibson, J. E.	Dryden	District of Rainy River	1914, Nov.	20	
Ginn, F. E.	Matheson	Part District of Nipissing	1912, Mar.	20	
Hales, W.	Apsley	do County of Peterborough	1911, July	20	
Hollands, C. J.	Fort Frances	Part Township of Alberta and part District of Rainy River	1892, Oct.	12	
Jenkin, W.	Emsdale	Part District of Parry Sound	1908, July	29	
Langlois, E.	Warren	do do	1911, April	4	Removed June 14th, 1916.
Lemieux, J. A.	Bleazard Valley ..	Sudbury	1908, June	26	Resigned July 31st, 1916.
McFayden, A.	Emo	do do	1905, Sept.	8	
MacLennan, J. K.	Sudbury	Rainy River	1905, July	3	
Noble, E.	Sault Ste. Marie ..	do do	1913, Feb.	1	
Parsons, W. J.	North Bay	Algoma	1903, April	8	
Phillon, J. A.	Sturgeon Falls	do do	1907, Sept.	13	
Prince, A.	Wilno	Part of Renfrew	1905, July	12	

Appendix No. 2.—Concluded.

List of Agents for the year ending October 31st 1916.—Continued.

Name.	Post office address	District or county.	Date of appointment.	Salary per annum.	Remarks.
<i>Land Agents—Continued.</i>					
Small, R.	Mattawa	Part District of Nipissing	1910, June 30	\$ 500 00	
Spry, W. L.	Kenora	do do Rainy River	1909, Sept. 21	400 00	Also Mining Recorder.
Wait, F.	Pembroke	Part of Renfrew	1913, May 28	300 00	
Whybourne, W. E.	Marksville	Part of St. Joseph Island	1905, April 7	250 00	
Wilson, A. N.	Kinmount	Part of Peterborough	1915, June 1	175 00	
Woollings, J.	Englehart	Part of District of Nipissing	1908, June 30	600 00	
<i>Homestead Inspectors.</i>					
Barr, J.	Fort Frances	District of Rainy River	1906, Nov. 23	1,200 00	
Bastien, J. A.	Chelmsford	W. Part of Sudbury District	1913, May 2	600 00	
Brown, J. B.	Gracebridge	Muskoka District	1905, July 28	1,000 00	Also Crown Land Agent.
Burnes, C. W.	Sundridge	Parry Sound District	1905, Nov. 15	900 00	
Cragg, W. V.	New Liskeard	S. Part of Temiskaming District	1913, Mar. 27	1,200 00	
Dean, T.	Sault Ste. Marie	Algonia District	1908, July 29	600 00	
Hughes, T.	Murillo	Thunder Bay District	1908, July 20	800 00	
Poole, E. G.	Porquis Jet.	Part Temiskaming District	1908, July 20	800 00	
Quenneville, I.	Sturgeon Falls	Part Sudbury and W. Part Algonia Districts	1916, Sept. 12	1,200 00	
Smith, D.	Cochrane	N. Part Temiskaming District	1906, May 7	600 00	
Watson, T. P.	Englehart	Centre Part of Temiskaming district	1912, April 16	1,000 00	
Wigle, R. G.	Dryden	Kenora District	1905, May 10	1,000 00	
		Kenora District	1914, May 27	1,000 00	
<i>Timber Agents.</i>					
Bremner, G.	Cochrane	Part Temiskaming and Algonia Districts	1913, May 20	1,300 00	
Christie, W. P.	Parry Sound	Part Parry Sound and Muskoka Districts	1903, Dec. 4	1,600 00	
Darby, E. J.	Ottawa	Part Ottawa District	1889, July 26	1,500 00	
Hawkins, S. J.	Webbwood	Part Algonia and Sudbury Districts	1905, Aug. 16	1,500 00	
Henderson, C.	Sudbury	do do	1902, Jan. 1	1,800 00	
Johnson, S. M.	Arnprior	Part Ottawa and Parry Sound Districts	1907, Jan. 11	1,600 00	
MacDonald, S. C.	New Liskeard	Part Temiskaming District	1910, Sept. 27	1,600 00	

Margach, W.	Kenora	Kenora District	1889, May	16	\$ 1,600 00
Maughan, J.	Sault Ste. Marie..	Part District of Algoma	1903, Dec.	9	1,500 00
McDonald, H.	Thessalon	do do	1905, April	20	1,500 00
McDougall, J. T. ...	North Bay	Nipissing and Part Sudbury District	1908, July	8	1,600 00
Oliver, J. A.	Port Arthur	Thunder Bay District	1905, Sept.	30	1,500 00
Stevenson, A.	Peterborough	Belleville	1905, Oct.	4	1,000 00
Watts, G.	Fort Frances	Rainy River District	1910, April	19	1,500 00
<i>Mining Recorders.</i>					
Browning, A. J.	Elk Lake	Montreal River Mining Division	1913, July	15	1,100 00
Campbell, C. A.	Sudbury	Sudbury Mining Division	1910, Jan.	6	900 00
Gauthier, G. H.	Porcupine	Porcupine Mining Division	1912, July	16	1,500 00
Hough, J. A.	Matheson	Larder Lake Mining Division	1907, May	22	1,200 00
Miller, N.	Sault Ste. Marie..	Sault Ste. Marie Mining Division	1915, June	9	1,000 00
Morgan, J. W.	Port Arthur	Port Arthur Mining Division	1906, Dec.	28	1,000 00
Morgan, M. R.	Tashota	Kowkash Mining Division	1916, Mar.	10	900 00
McAulay, N. J.	Haileybury	Temiskaming Mining Division	1915, May	8	1,800 00
McQuire, H. F.	Parry Sound	Parry Sound Mining Division	1906, Sept.	26	500 00
Sheppard, H. E.	Elk Lake	Gowganda Mining Division	1909, Feb.	10	1,000 00
Skill, A.	Elk Lake	Montreal River Mining Division	1909, April	1	1,200 00
Spry, W. L.	Kenora	Kenora Mining Division	1909, Sept.	21	750 00
<i>Emigration Agents.</i>					
Reid, R.	London	England	1913, Feb.	7	5,000 00
Clark, J. M.	London	do	1913, Mar.	17	1,800 00
Thompson, J.	London	do	1906, Jan.	24	1,800 00

Died October 26th, 1916.

D. GEO. ROSS,
Accountant.

ALBERT GRIGG,
Deputy Minister of Lands and Forests.

Appendix No. 3.

Statement of Lands Sold and Leased. Amount of Sales and Leases and Amount of Collections for the year ending October 31st, 1916.

Service.	Acres sold and leased.	Amount of sales and leases.	Collection on sales and leases.
<i>Lands Sold:</i>		\$ c.	\$ c
Agricultural and Townsites.....	98,209.02	66,815 98	83,533 03
Mining	14,592.11	37,756 28	36,457 56
University Mining	80.75	242 26	121 13
Clergy			1,692 32
Common School	50 00	70 00	3,760 48
University	2,967.50	1,483 75	1,518 51
<i>Lands Leased:</i>			
Mining	5,858.04	5,858 04	16,218 36
Crown	11,689 59	1,170 87	50,756 43
	133,447.01	\$113,397 18	\$194,057 82

D. GEO. ROSS,
Accountant.

ALBERT GRIGG,
Deputy Minister of Lands and Forests.

Appendix No. 4.

Statement of Revenue of the Department of Lands, Forests and Mines for the year ending October 31st, 1916.

Service.	c.	\$ c.	\$ c
LAND COLLECTIONS.			
<i>Crown Lands:</i>			
Agricultural.....	79,598 75		
Townsites	3,934 28	83,533 03	
Mining Sales	36,457 56		
University Mining Sales	121 13	36,578 69	
		120,111 72	
Clergy Lands	1,692 32		
Common School Lands	3,760 48		
University Lands	1,518 51	6,971 31	
Mining Leases	16,218 36		
Crown Leases	50,756 43	66,974 79	
Miners' Licenses	27,264 75		
Permits	960 00		
Recording Fees	38,682 23	66,906 98	
		15,083 52	
Royalties.....			
<i>Supplementary Revenue:</i>			
Acreage Tax	12,637 38		
Profit Tax	140,559 60		
Gas Tax	33,650 14	186,827 12	
			462,875 44
WOODS AND FORESTS.			
Bonus.....		419,827 94	
Timber Dues		822,332 81	
Ground Rent.....		89,520 03	
Transfer Fees.....		3,640 00	
			1,335,320 78
Provincial Assay Fees.....	744 75		
Casual Fees	1,216 43		
Cullers' Fees	48 00	2,009 18	
Algonquin Provincial Park	3,912 49		
Quetico Provincial Park	180 98		
Forest Reserves.....	767 50	4,860 97	
			6,870 15
REFUNDS.			
Fire Ranging		40,357 11	
Wood Ranging		10,383 18	
Algonquin Park, Cleaning Right-of-Way.....		3,427 48	
Colonization Revenue		1,127 23	
Contingencies		122 85	
Emigration Work in Great Britain.....		56 15	
Mines and Mining		11 20	
Salaries and Expenses.....		2 00	
Surveys		3 00	
			55,491 00
			\$1,860,557 37

D. GEO. ROSS,
Accountant.ALBERT GRIGG,
Deputy Minister of Lands and Forests.

Appendix No. 5.

Statement of Receipts of the Department of Lands, Forests and Mines for the year ending October 31st, 1916, which are considered as Special Funds.

Service.	\$ c.	\$ c.
<i>Clergy Lands.</i>		
Principal.....	874 35	
Interest.....	817 97	1,692 32
<i>Common School Lands.</i>		
Principal.....	1,838 62	
Interest.....	1,921 86	3,760 48
<i>University Lands.</i>		
Principal.....	1,248 95	
Interest.....	269 56	1,518 51
		\$6,971 31

D. GEO. ROSS,
Accountant.

ALBERT GRIGG,
Deputy Minister of Lands and Forests.

Appendix No. 6.

Statement of Disbursements of the Department of Lands, Forests and Mines for the year ending October 31st, 1916.

Service.	\$ c.	\$ c.	\$ c.
AGENTS' SALARIES AND DISBURSEMENTS.			
<i>Land, \$17,251.77.</i>			
Anderson, T. V.	500 00		
Disbursements	21 03		
		521 03	
Arthurs, E.		200 00	
Baker, R. H.		350 00	
Bolger, J. W.	700 00		
Disbursements	74 50		
		774 50	
Both, C.		200 00	
Brown, J. B.	1,000 00		
Disbursements	109 45		
		1,109 45	
Brown, J.	172 90		
Disbursements	3 78		
		176 68	
Burrows, W. A.	700 00		
Disbursements	101 80		
		801 80	
Byers, R. J.	257 59		
Disbursements	2 15		
		259 74	
Cameron, W.	500 00		
Disbursements	47 00		
		547 00	
Campbell, Miss I. M.	500 00		
Disbursements	13 00		
		513 00	
Dempsey, S. J.	600 00		
Disbursements	57 55		
		657 55	
Dodds, T.	300 00		
Disbursements	3 00		
		303 00	
Douglas, W. J.	500 00		
Disbursements	12 00		
		512 00	
Ellis, H. J.		500 00	
Flesher, H. H.		241 61	
Freeborn, Dr. J. S.	500 00		
Disbursements	7 90		
		507 90	
Gibson, J. E.	500 00		
Disbursements	70 00		
		570 00	
Ginn, F. E.	600 00		
Disbursements	518 20		
		1,118 20	
Hales, W.		250 00	
Hollands, C. J.		300 00	
		10,413 46	

Appendix No. 6.—Continued.

Service.	\$ c.	\$ c.	\$ c.
<i>Brought forward</i>		10,413 46	
AGENTS' SALARIES AND DISBURSEMENTS.—Continued.			
<i>Land.—Concluded.</i>			
Jenkin, W.	500 00		
Disbursements	6 05	506 05	
Langlois, E.	312 30		
Disbursements	9 78	322 08	
Lemieux, J. A.		300 00	
McFayden, A.	500 00		
Disbursements	52 30	552 30	
MacLennan, J. K.		500 00	
Noble, E.	300 00		
Disbursements	7 20	307 20	
Parsons, W. J.	500 00		
Disbursements	21 00	521 00	
Phillion, J. A.	500 00		
Disbursements	19 68	519 68	
Prince, A.	500 00		
Disbursements	18 75	518 75	
Small, R.	500 00		
Disbursements	16 00	516 00	
Spry, W. L.	400 00		
Disbursements	488 75	888 75	
Watt, F.		300 00	
Whybourne, W. E.	250 00		
Disbursements	9 00	259 00	
Wilson, A. N.	175 00		
Disbursements	12 50	187 50	
Woollings, J.	600 00		
Disbursements	40 00	640 00	
<i>Homestead Inspectors, \$12,593.23.</i>			
Barr, J.	1,200 00		
Disbursements	691 10	1,891 10	
Bastien, J. A.	600 00		
Disbursements	288 17	888 17	
Burnes, C. W.	900 00		
Disbursements	209 95	1,109 95	
Cragg, W. V.	1,200 00		
Disbursements	226 96	1,426 96	
		22,567 95	

Appendix No. 6.—Continued.

Service.	\$ c.	\$ c.	\$ c.
<i>Brought forward</i>		22,567 95	
AGENTS' SALARIES AND DISBURSEMENTS.— <i>Continued.</i>			
<i>Homestead Inspectors.—Concluded.</i>			
Dean, T.	600 00		
Disbursements	45 65		
		645 65	
Hughes, T.	800 00		
Disbursements	402 35		
		1,202 35	
Poole, E. G.		300 00	
Quenneville, I.	600 00		
Disbursements	342 20		
		942 20	
Smith, D.	1,000 00		
Disbursements	240 70		
		1,240 70	
Watson, T. P.	1,000 00		
Disbursements	422 15		
		1,422 15	
Wigle, R. G.	1,000 00		
Disbursements	524 00		
		1,524 00	
<i>Timber, \$29,402.13.</i>			
Bremner, G.	1,300 00		
Disbursements	439 45		
		1,739 45	
Christie, W. P.	1,600 00		
Disbursements	228 05		
		1,828 05	
Hawkins, S. J.	1,500 00		
Disbursements	363 99		
		1,863 99	
Henderson, C.	1,800 00		
Webster, W. A., Assistant	1,600 00		
Disbursements	346 00		
		3,746 00	
Johnson, S. M.	1,600 00		
Disbursements	142 47		
		1,742 47	
MacDonald, S. C.	1,600 00		
Disbursements	187 84		
		1,787 84	
Margach, W.	1,600 00		
Legris, J., Assistant	1,300 00		
Disbursements	1,134 27		
		4,034 27	
Maughan, J.	1,500 00		
Disbursements	388 75		
		1,888 75	
McDonald, H.	1,500 00		
Disbursements	438 31		
		1,938 31	
McDougall, J. T.	1,600 00		
Disbursements	710 54		
		2,310 54	
Oliver, J. A.	1,500 00		
Disbursements	1,030 92		
		2,530 92	
Stevenson, A.	1,500 00		
Disbursements	436 46		
		1,936 46	
		57,192 05	

Appendix No. 6.—Continued.

Service.	\$ c.	\$ c.	\$ c.
<i>Brought forward</i>		57,392 05	
AGENTS' SALARIES AND DISBURSEMENTS.— <i>Concluded.</i>			
<i>Timber.—Concluded.</i>			
Watts, G.	1,500 00		
McDonald, A., Assistant	265 18		
Disbursements	289 90	2,055 08	
<i>Miscellaneous, \$1,373.08.</i>			
Bilton, G., Caretaker Islands in North and South Crosby		25 00	
Foster, F., Inspector of the Townships of Hanna and St. Johns		47 50	
Jamieson, W. H., Caretaker Islands in Dog and Laboria Lakes		50 00	
McArthur, T. A., Inspector of Agencies	600 00		
Disbursements	605 40	1,205 40	
Stewart, J. A., Disbursements <i>re</i> Inspection of the Township of St. Johns		45 18	
OTTAWA AGENCY.			60,620 21
Darby, E. J., Agent		1,500 00	
Larose, S. C., Clerk		1,000 00	
Rent	700 00		
Disbursements	83 70	783 70	
WOOD RANGING.			3,283 70
Acheson, Ira M.		70 00	
Allen, R. A.		815 00	
Allen, Geo.		75 00	
Ansley, W. E.		535 00	
Arnill, Wm.		1,135 00	
Bailey, S. J.		525 00	
Bailey, Alex.		180 00	
Barrett, Thos.		914 00	
Bedard, E.		306 00	
Berlinquette, J.		352 00	
Bliss, L. E.	655 00		
Disbursements	170 61	825 61	
Boyer, P.		248 50	
Bremner, G. A. Disbursements ..		16 75	
Bromley, T.		650 00	
Brooks, W. J.		635 00	
Buchan, S.		361 00	
Buisson, Wm.		650 00	
Cameron, John		460 00	
Cameron, John		204 00	
Canore, Joe		30 00	
Carnfel, T.		387 00	
Carter, Geo.		488 00	
Castonguay, A. C.		655 00	
Chenier, D. A.		1,380 00	
Clairmont, E.		576 00	
Clapson, H.		255 00	
Close, R. J.		175 75	
Cloud, Wm.		248 50	
Cole, R.		187 62	
Comer, B. F.		368 00	
<i>Carried forward</i>		13,708 73	63,903 91

Appendix No. 6.—Continued.

Service.	\$ c.	\$ c.	\$ c.
<i>Brought forward</i>		13,708 73	63,903 91
<i>WOOD RANGING.—Continued.</i>			
Connelly, Dan		680 00	
Corrigan, R. T.		935 00	
Coyne, Phin		770 00	
Cross, R. J.		372 00	
Darling, J. M.		855 00	
Decarey, E.		15 00	
Deneen, M.		30 00	
Descoteaux, H.		9 00	
Didier, H.		910 00	
Dougherty, J. M.		512 00	
Doxsee, J. E.		1,010 00	
Dunn, J. F.		235 00	
Dunn, Wm.		285 00	
Durrell, Wm.		1,420 00	
Duval, C. A.	690 00		
Disbursements	5 50		
		695 50	
Dyson, I.		258 00	
Emlaw O.		595 00	
Fairbairn, N. H.		731 00	
Ferguson, A. E.		1,100 00	
Fisher, Geo.		440 00	
Fletcher, M.		494 00	
Fraser, D.		1,180 00	
Fraser, T.		24 00	
Fraser, Don.		93 00	
Fraser, W. A.		95 00	
Gamey, W. H.		445 00	
Ganton, D.		85 00	
Gilligan, E. J.		535 00	
Gordon, I. B.		372 00	
Gordon, Joseph		287 50	
Hagan, E. G.		760 00	
Haines, B.		294 00	
Hand, T.	348 00		
Disbursements	61 15		
		409 15	
Hart, I.		766 00	
Hartley, C.		1,230 00	
Hauralty, P.		291 00	
Hawkins, W.		92 00	
Hawkins, S. J. Disbursements..		39 90	
Henderson, A. E.		885 00	
Henderson, A. E.		875 00	
Henderson, Chas. Disbursements..		473 05	
Henderson, L.		553 00	
Henderson, L. E.		30 00	
Henderson, J.		365 75	
Hey, Ben		324 00	
Hindson, C. E. Disbursements..		35 35	
Hoff, J. S. M.		56 00	
Hogarth, J.		670 00	
Hornick, Geo.		38 00	
Huckson, Alf.		48 75	
Hudson, R.		187 50	
Hurdman, W. H.		725 00	
Hutton, J.		1,140 00	
Jamieson, J.		180 00	
Jones, W.		328 00	
<i>Carried forward</i>		39,973 18	63,903 91

Appendix No. 6.—Continued.

Service.	\$ c.	\$ c.	\$ c.
<i>Brought forward</i>		57,392 05	
AGENTS' SALARIES AND DISBURSEMENTS.— <i>Concluded.</i>			
<i>Timber.—Concluded.</i>			
Watts, G.	1,500 00		
McDonald, A., Assistant	265 18		
Disbursements	289 90	2,055 08	
<i>Miscellaneous, \$1,373.08.</i>			
Bilton, G., Caretaker Islands in North and South Crosby		25 00	
Foster, F., Inspector of the Townships of Hanna and St. Johns		47 50	
Jamieson, W. H., Caretaker Islands in Dog and Laboria Lakes		50 00	
McArthur, T. A., Inspector of Agencies	600 00		
Disbursements	605 40	1,205 40	
Stewart, J. A., Disbursements <i>re</i> Inspection of the Township of St. Johns		45 18	
OTTAWA AGENCY.			60,620 21
Darby, E. J., Agent		1,500 00	
Larose, S. C., Clerk		1,000 00	
Rent	700 00		
Disbursements	83 70	783 70	
WOOD RANGING.			3,283 70
Acheson, Ira M.		70 00	
Allen, R. A.		815 00	
Allen, Geo.		75 00	
Ansley, W. E.		535 00	
Arnell, Wm.		1,135 00	
Bailey, S. J.		525 00	
Bailey, Alex.		180 00	
Barrett, Thos.		914 00	
Bedard, E.		306 00	
Berlinquette, J.		352 00	
Bliss, L. E.	655 00		
Disbursements	170 61	825 61	
Boyer, P.		248 50	
Bremner, G. A. Disbursements ..		16 75	
Bromley, T.		650 00	
Brooks, W. J.		635 00	
Buchan, S.		361 00	
Buisson, Wm.		650 00	
Cameron, John		460 00	
Cameron, John		204 00	
Canore, Joe		30 00	
Carnfel, T.		387 00	
Carter, Geo.		488 00	
Castonguay, A. C.		655 00	
Chenier, D. A.		1,380 00	
Clairmont, E.		576 00	
Clapson, H.		255 00	
Close, R. J.		175 75	
Cloud, Wm.		248 50	
Cole, R.		187 62	
Comer, B. F.		368 00	
<i>Carried forward</i>		13,708 73	63,903 91

Appendix No. 6.—Continued.

Service.	\$ c.	\$ c.	\$ c.
<i>Brought forward</i>		13,708 73	63,903 91
WOOD RANGING.— <i>Continued.</i>			
Connelly, Dan		680 00	
Corrigan, R. T.		935 00	
Coyne, Phin		770 00	
Cross, R. J.		372 00	
Darling, J. M.		855 00	
Decarey, E.		15 00	
Deneen, M.		30 00	
Descoteaux, H.		9 00	
Didier, H.		910 00	
Dougherty, J. M.		512 00	
Doxsee, J. E.		1,010 00	
Dunn, J. F.		235 00	
Dunn, Wm.		285 00	
Durrell, Wm.		1,420 00	
Duval, C. A.	690 00		
Disbursements	5 50		
		695 50	
Dyson, I.		258 00	
Emlaw O.		595 00	
Fairbairn, N. H.		731 00	
Ferguson, A. E.		1,100 00	
Fisher, Geo.		440 00	
Fletcher, M.		494 00	
Fraser, D.		1,180 00	
Fraser, T.		24 00	
Fraser, Don.		93 00	
Fraser, W. A.		95 00	
Gamey, W. H.		445 00	
Ganton, D.		85 00	
Gilligan, E. J.		535 00	
Gordon, I. B.		372 00	
Gordon, Joseph		287 50	
Hagan, E. G.		760 00	
Haines, B.		294 00	
Hand, T.	348 00		
Disbursements	61 15		
		409 15	
Hart, I.		766 00	
Hartley, C.		1,230 00	
Hauralty, P.		291 00	
Hawkins, W.		92 00	
Hawkins, S. J.	Disbursements..	39 90	
Henderson, A. E.		885 00	
Henderson, A. E.		875 00	
Henderson, Chas.	Disbursements..	473 05	
Henderson, L.		553 00	
Henderson, L. E.		30 00	
Henderson, J.		365 75	
Hey, Ben		324 00	
Hindson, C. E.	Disbursements..	35 35	
Hoff, J. S. M.		56 00	
Hogarth, J.		670 00	
Hornick, Geo.		38 00	
Huckson, Alf.		48 75	
Hudson, R.		187 50	
Hurdman, W. H.		725 00	
Hutton, J.		1,140 00	
Jamieson, J.		180 00	
Jones, W.		328 00	
<i>Carried forward</i>		39,973 18	63,903 91

Appendix No. 6.—Continued.

Service.	\$ c.	\$ c.	\$ c.
<i>Brought forward</i>		39,973 18	63,903 91
WOOD RANGING.—Continued.			
Kernahan, G. A.		444 00	
Lamon, Wm.		88 00	
Lapoint, James		63 00	
Laundry, H.		82 50	
Leblanc, E.		30 00	
Lee, J. B.		975 00	
Legris, J. Disbursements ..		15 80	
Leishman, E.		490 00	
Lepage, L.		42 00	
LeRoy, Levi		558 50	
Long, H. E.	905 00		
Disbursements ..	9 05		
		914 05	
Lowe, W. C.		216 00	
Macdonell, R. D.		535 00	
MacGillivray, G.		349 00	
Manice, Wm.		1,270 00	
Margach, Wm. Disbursements ..		1,353 68	
Margach, J. A.		510 00	
Marr, H. S.		24 00	
Marsh, Ed.		230 00	
Maughan, J. Disbursements ..		101 19	
Menzies, A.	1,620 00		
Disbursements ..	402 75		
		2,022 75	
Mercier, Ed.		292 50	
Milway, J. H.		837 00	
Miniece, Wm.		70 00	
Molyneaux, G.		610 00	
Mongrain, Fred		17 50	
Mooney, L.	1,710 75		
Disbursements ..	597 25		
		2,308 00	
Moran, A.		1,700 00	
Morel, H.		448 00	
Murray, Wm.		1,669 00	
Murray, Earl		292 50	
Murray, James		448 50	
Murray, Thos.		172 50	
Murray, John		17 25	
McAulay, W. D.		780 00	
McCaw, J. G.		1,565 00	
McCaw, J. E.		935 00	
McCuaig, J. A.		391 00	
McCuaig, Roy		323 00	
McDonald, J. D.		1,700 00	
McDonald, H. Disbursements ..		4 50	
McDougall, J. T. Disbursements ..		33 70	
McFarlane, J. A.		292 50	
McFarlane, Alex.		437 00	
McGillivray, D. D.		360 00	
McGregor, Wm.		360 00	
McGuire, C.	420 00		
Disbursements ..	25 05		
		445 05	
McIvor, J. A.		1,132 00	
McKelvy, J.		18 00	
McKendry, W. B.		55 00	
McLaughlin, J.		332 50	
McLean, J.	1,615 00		
Disbursements ..	162 75		
		1,777 75	
<i>Carried forward</i>		70,112 40	63,903 91

Appendix No. 6.—Continued.

Service.	\$ c.	\$ c.	\$ c.
<i>Brought forward</i>		70,112 40	63,903 91
<i>WOOD RANGING.—Concluded.</i>			
McLeod, Wm.		30 00	
McManemun, C.		442 75	
McNabb, A.		970 00	
McPherson, J. S.		1,435 00	
McRae, D. A.		588 00	
Nault, J.		184 00	
Nelson, P.		87 00	
Nevinson, W. H.		280 00	
Nicoll, Geo.		288 75	
Niblet, Jas.		100 00	
Oliver, J. A. Disbursements ..		829 10	
Payment, Paul		372 00	
Pelton, F.		228 25	
Pigott, J.		870 00	
Quinn, A.		387 00	
Reid, J.		1,050 00	
Ricard, A.		186 00	
Ridley, R.		1,410 00	
Ritchie, J. F.		920 00	
Ross, S.		1,067 50	
Ryan, Jas.		376 00	
Sharpe, Jas.		930 00	
Shaw, A.		940 00	
Shaw, D.		296 00	
Simpson, Wm.		1,115 00	
Smith, J. D. C.		372 00	
Smith, Geo.		370 50	
Snyder, F.		294 00	
Spavin, John		250 00	
Spence, D.		1,565 00	
Spofford, Thos.		112 50	
Squires, John		14 25	
Stein, P.	1,232 31		
Disbursements	195 00		
		1,427 31	
Talouse, B.		270 00	
Thompson, W. B.		540 00	
Thorburn, D.		250 00	
Tichborne, A.		600 00	
Urquhart, A.		1,115 00	
Vanderburg, N.		64 00	
Vincent, H. T.		1,650 00	
Watts, Geo. Disbursements ..		34 35	
Webster, W. A. Disbursements ..		423 06	
Western, C.		700 00	
Whelan, P. J.		1,700 00	
Wilkins, G. N.		745 00	
Wilson, D.	1,188 25		
Disbursements	32 70		
		1,220 95	
Wilson, C.		6 00	
Windle, J.		189 00	
Wisseau, E.		190 00	
Wisseau, L.		150 00	
Wood, W. D.		735 00	
Wylie, B. M.		400 00	
Young, R. J.		695 00	
Young, J. J.		361 00	
Yuill, Thos.		340 00	
			102,293 67
<i>Carried forward</i>			166,197 58

Appendix No. 6.—Continued.

Service.	\$ c.	\$ c.	\$ c.
<i>Brought forward</i>			166,197 58
EXPLORATION AND ESTIMATION OF TIMBER BERTHS.			
Henderson, Chas. ....Disbursements..		500 00	
Maughan, Jos. ....Disbursements..		500 00	
Oliver, J. A. ....Disbursements..		148 95	
			1,148 95
FIRE RANGING.			
Acheson, I. M.		327 50	
Adams, Alex.		380 00	
Adair, Robt.		372 50	
Allen, R. A.		920 00	
Allen, David		337 50	
Anderson, Ollie		372 50	
Armstrong, W. H.		365 00	
Armstrong, E. L.		357 50	
Arnold, D. O.		362 50	
Ashby, L. P.		372 50	
Bailey, H.		415 00	
Baird, C.		65 00	
Baker, J. A.		305 00	
Barrie, T.		340 00	
Bates, R.		376 75	
Beach, F. C.		352 50	
Beddome, W. E.		85 00	
Belcher, E. D.		375 00	
Bevan, S. W.		347 50	
Bilow, J. W.		372 50	
Blair, Geo.	840 00		
Disbursements	451 81		
		1,291 81	
Bliss, L. E. ....Disbursements..		1,068 14	
Bookhout, H.		367 50	
Boivin, John		300 00	
Boucher, C.		377 50	
Bowers, G.		352 50	
Bowins, J.		330 00	
Bowland, J. J.	568 00		
Disbursements	94 45		
		662 45	
Bowles, John		302 50	
Bradley, E. M.		352 50	
Brant, Geo.		312 50	
Brewer, A.		372 50	
Brown, Aug.		327 50	
Brown, T. E.		375 00	
Brum, A. W.		840 00	
Bulmer, A.		350 00	
Bunting, H. T.		370 00	
Caldwell, C. N.		352 50	
Campbell, D.		402 50	
Campbell, T. J.		337 50	
Cambell, Wm.		347 50	
Campbell, R. A.		347 50	
Campbell, Alex.		310 00	
Canfield, H.		84 00	
Case, G. H.		315 00	
Case, Geo.		376 40	
Caslick, Wm.		345 00	
Canadian Express Company ....Express..		18 63	
Chambers, T.		367 50	
Chaffey, Wm.		372 50	
Chausse, A.		265 00	
<i>Carried forward</i>		19,795 68	167,346 53

Appendix No. 6.—Continued.

Service.	\$ c.	\$ c.	\$ c.
<i>Brought forward</i>		19,795 68	167,346 53
<i>FIRE RANGING.—Continued.</i>			
Chapman, Wm.		407 50	
Childs, Jas.		347 50	
Christie, W. P. Disbursements ..		371 49	
Christie, Geo.		337 50	
Clark, H.		335 00	
Clary, J. H.		295 00	
Connell, Wm.		387 50	
Cole, W. M.		352 50	
Cook, F. H.		371 25	
Corman, H. E.		347 50	
Cottman, J. T.		352 50	
Cone, Phin	840 00		
Disbursements	226 01		
		1,066 01	
Crawford, John		372 50	
Craig, J.		320 00	
Crass, W. E.		135 00	
Crosbie, W. R.		335 00	
Culen, W. F.		377 50	
Davidson, Ira		342 50	
Dean, A.		352 50	
Dennie, F. J.		504 00	
Derouard, M.		200 00	
Didier, L. P.		840 00	
Donio, J.		365 00	
Douglas, J. R.		347 50	
Dowd, H. L.		360 00	
Doyle, James		382 50	
Durnin, C. S.		612 00	
Durocher, F.		160 00	
Dusang, A.		376 75	
Eilber, Geo.		377 50	
Elliott, W. J.		347 50	
Elliott, J.		347 50	
Elliott, C. H.		347 50	
Ellis, E. C.		377 50	
Ellsworth, C. B.		315 00	
Evans, A.		367 50	
Fairburn, N. H.		335 00	
Favereau, Geo.		380 00	
Ferguson, T.		392 50	
Ferguson, Angus		347 50	
Ferguson, Archie		347 50	
Ferguson, Geo.		380 00	
Fisher, Geo.		800 00	
Fletcher, N.		285 00	
Fraser, A. E.		340 00	
Fraser, Gordon		345 00	
Fraser, W. A.		342 50	
Fowle, Wm.		365 00	
Fox, A.		352 50	
Gagne, F.	900 00		
Disbursements	232 00		
		1,132 00	
Gale, J. E.		315 00	
Gamble, Wm.		295 00	
Garrow, J.		322 50	
Garrow, James		367 50	
<i>Carried forward</i>		41,074 18	167,346 53

Appendix No. 6.—Continued.

Service.	\$ c.	\$ c.	\$ c.
<i>Brought forward</i>		41,074 18	167,346 53
<i>FIRE RANGING.—Continued.</i>			
Gault, J.		342 50	
Gauthier, Theo.		380 00	
Gemmill, John	568 00		
Disbursements	196 70		
		764 70	
Gorman, D.		340 00	
Grant, B. A.		377 50	
Guthrie, Wm.		382 50	
Hamon, F.		377 50	
Hand, Thos.		568 00	
Harris, C.		354 75	
Haskins, W.		342 50	
Henderson, J.		262 50	
Henderson, C. Disbursements ..		84 00	
Hey, Ben		840 00	
Hill, E.		12 50	
Hindson, C. E. Disbursements ..		51 16	
Hopkins, R. D.		342 50	
House, O.		160 00	
Huckson, A. H.	1,600 00		
Disbursements	183 74		
		1,783 74	
Hume, O. B.		250 00	
Humphreys, E.		345 00	
Humphries, S.		315 00	
Hunter, H.		335 00	
Hyde, Jas.		382 50	
Ireland, H.		260 00	
Irish, Wm.		330 00	
Irwin, T.		342 50	
Isbister, J. A.		360 25	
Jamieson, K. W.		342 50	
Jenkins, S.	642 00		
Disbursements	828 82		
		1,470 82	
Jerrett, E. L.		377 50	
Johnson, F.		360 00	
Johnson, Wm.		387 50	
Johnson, Alex.		365 00	
Johnston, John		382 50	
Jollicoure, P.		117 50	
Keenahan, Matt.		382 50	
Kelly, Timothy		380 00	
Keely, C. A.		357 50	
Kerr, A.		342 50	
Kiely, M.		337 50	
Kinney, Wm.		396 00	
King's Printer Supplies ..		650 70	
Kitchen, James		387 50	
Lalone, H.		330 00	
Langford, Thos.		382 50	
Lanktree, J.		375 00	
Lee, Jas. B.	815 00		
Disbursements	453 34		
		1,268 34	
Lee, E. J.		362 50	
Liddilcott, T.		347 50	
Lofquist, M.		372 50	
<i>Carried forward</i>		62,236 64	167,346 53

Appendix No. 6.—Continued.

Service.	\$ c.	\$ c.	\$ c.
<i>Brought forward</i>		62,236 64	167,346 53
<i>FIRE RANGING.—Continued.</i>			
Long, H. E.	755 00		
Disbursements	325 88		
		1,080 88	
MacDonald, S. C. Disbursements ..		7 15	
MacDonald, M.		152 50	
MacDonell, L. P.		382 50	
Macdonell, R. D.		840 00	
MacGregor, W. H.	855 00		
Disbursements	938 93		
		1,793 93	
MacNeil, J. A.		375 00	
Maidens, W.		347 50	
Margach, Wm. Disbursements ..		870 39	
Margach, J. A.		476 00	
Martin, N.		342 50	
Martin, T.		305 00	
May, H.	795 00		
Disbursements	113 66		
		908 66	
Menard, H.		352 50	
Methodist Book and Publishing House..Supplies.		25 15	
Metzger, P.		135 00	
Milway, J. H.		840 00	
Moir, A.		320 00	
Molyneaux, Geo.		572 00	
Moore, Chas.		357 50	
Moore, J. V.		342 50	
Morton, Wm.		365 00	
McAulay, W. D.		568 00	
McColl, John		352 50	
McColl, Wm.		352 50	
McCoy, L.		115 00	
McCullough, D. J.		382 50	
McDonald, A.		352 50	
McDonald, J.		317 50	
McDonald, C.		295 00	
McGregor, J. A.		372 50	
McIntosh, Jas.		370 00	
McKendry, W. B.		390 00	
McKinnon, H.		340 00	
McKinnon, E.		377 50	
McLeod, J. A.		330 00	
McLure, D.		352 50	
McMahon, C. E.		362 50	
McMaster, W.		42 50	
McMaster, J.		65 00	
McNiece, J. W.	375 00		
Disbursements	5 00		
		380 00	
McPhail, H.		347 50	
McRae, D. A.		426 00	
Neil, R. L.		367 50	
Neil, Wm.		165 00	
Neill, Joseph		372 50	
Nelson, N.		167 50	
Niddery, R. J.		215 00	
O'Connell, J.		380 00	
Oliver, J. A. Disbursements ..		266 42	
<i>Carried forward</i>		82,253 72	167,346 53

Appendix No. 6.—Continued.

Service.	\$ c.	\$ c.	\$ c.
<i>Brought forward</i>		82,253 72	167,346 53
<i>FIRE RANGING.—Continued.</i>			
Olton, Wm. P.		357 50	
Packnool, C. E.		347 50	
Parkhouse, H.		355 00	
Peacock, Wm.		347 50	
Pigott, H.		347 50	
Pigott, J. A.		347 50	
Pingle, A.		352 50	
Piper, C.		340 00	
Platt, S. P.		200 00	
Pollock, R.		347 50	
Porter, C. T.		100 00	
Porteous, Wm.		377 50	
Potter, L. I.		347 50	
Pritchard, F.		514 50	
Prophet, E. A.		357 50	
Rabbitts, Max	775 00		
Disbursements	333 27		
		1,108 27	
Ragen, J.		305 00	
Ralston, D.		347 50	
Read, C.		290 00	
Regan, J.		327 50	
Revells, L. O.		784 00	
Reynolds, A.		307 50	
Rhodes, F. M.		142 50	
Robinson, J. B.		305 00	
Rochfort, A.		380 00	
Rowe, James		390 00	
Rusk, O. W.	Disbursements ..	1 94	
Savard, A.		347 50	
Scott, W.	422 50		
Disbursements	173 75		
		596 25	
Scott, T. E.		352 50	
Scott, R.		568 00	
Seymour, R. V.		202 50	
Shoeberg, Alf.		75 00	
Sinclair, D.		367 50	
Sing, W. H.		138 00	
Skidmore, G. H.		347 50	
Small, M. A.		372 50	
Smith, V.		514 50	
Smith, E. J.		307 50	
Smith, L.		330 00	
Spillett, John		202 50	
Spofford, T.		356 50	
Staniforth, A.		365 00	
State, Sam		347 50	
Stewart, J. A.	765 00		
Disbursements	653 75		
		1,418 75	
Sudds, D.		374 00	
Superior Construction Co.		982 93	
Swanson, G.		376 75	
Sweeney, L.		125 00	
Tang, John		382 50	
Thomson, W. B.		195 00	
<i>Carried forward</i>		101,628 11	167,346 53

Appendix No. 6.—Continued.

Service.	\$ c.	\$ c.	\$! c.
<i>Brought forward</i>		101,628 11	167,346 53
<i>FIRE RANGING.—Concluded.</i>			
Toomer, S.		347 50	
Tough, J. P.		372 50	
Tripp, E. C.		370 00	
Urlin, W. R.		232 50	
Urquhart, A.		536 00	
Walker, Geo.		375 00	
Watson, V. C.		352 50	
Watts, Geo.	Disbursements	142 09	
Warren, A. H.		352 50	
Weir, G. A.		347 50	
Welch, James		377 50	
West, W. H.		302 50	
Western, C.		432 00	
Whitley, P. L.		225 00	
White, J. H.		990 00	
Wickens, H.		376 75	
Wilkins, G. N.		568 00	
Wilson, J. G.		345 00	
Williams, R. A.		25 00	
Windle, James		920 00	
Wood, Seth		382 50	
Woodcock, Geo.		327 50	
Wright, H. H.		352 50	
Youmans, A.		360 25	
Young, S.		77 50	
			111,118 20
<i>FOREST RESERVES.</i>			
<i>Temagami Reserve, \$37,789.21.</i>			
Allen, Geo.		322 50	
Armstrong, G. N.		292 50	
Aubee, T.		345 00	
Avern, F. B.		352 50	
Barrett, T.		666 00	
Black, G.		345 00	
Blanchette, H.		355 00	
Bond, A. E.		150 00	
Brown, C. C.		335 00	
Brown, J. R.		362 50	
Buisson, Wm.		362 50	
Burns, J. L.		345 00	
Burns, M. P.		305 00	
Carleton, Geo.		347 50	
Cavanagh, S.		347 50	
Champagne, I.		355 00	
Cooper, A. W.		347 50	
Crawford, J.		282 50	
D'Embremont, F.		255 00	
Desrosiers, J.		355 00	
Desrosiers, E.		300 00	
Didier, H.	765 00		
Disbursements	222 53		
			987 53
Doyle, T. J.		230 00	
Edgar, J.		300 00	
Emond, A.		332 50	
Faeris, R.		1,059 00	
Flanagan, J.		325 00	
<i>Carried forward</i>		10,362 53	278,464 73

Appendix No. 6.—Continued.

Service.	\$ c.	\$ c.	\$ c.
<i>Brought forward</i>		10,362 53	278,464 73
<i>FOREST RESERVES.—Continued.</i>			
<i>Temagami Reserve.—Continued.</i>			
Flannigan, Wm.		300 00	
Friday, J.		50 00	
Gale, W. J.		355 00	
Galt, James		312 50	
Green, V. C.		320 00	
Grenier, J.		317 50	
Grindrod, S.		352 50	
Hamilton, J. E.		332 50	
Harrison, J. W.		915 00	
Hartley, M.		312 50	
Hartt, J. C.		175 00	
Hartt, I. B.		357 50	
Hawley, D. J.		347 50	
Henderson, C.	Disbursements	8 40	
Hindson, C. E.	1,300 00		
Disbursements	718 08		
		2,018 08	
Hunt, T.		300 00	
Hunter, B. J.		315 00	
Jacob, S. B.		37 50	
Jennings, J. E.		350 00	
Johnston, W.		357 50	
Kennedy, Wm.		387 50	
Lamarche, A.		915 00	
Lewis, S. T.		255 00	
Little, R. R.		337 50	
Mathers, F. W.		320 00	
Miller, J. R.		347 50	
Minor, E.		345 00	
Moffatt, A.		157 50	
Moore, C. A.		352 50	
Morrison, D. R.		355 00	
Morin, J.		332 50	
Morphy, C.		347 50	
McCosh, J. T.		335 00	
McGarvey, P.		325 00	
McLeish, W. J.		345 00	
McLean, R. S.		200 00	
McKechnie, A.		347 50	
McMullin, Wm.		357 50	
McNeil, E. R.		330 00	
McNiven, A.		310 00	
McNulty, T.		167 50	
Nadon, P.		355 00	
Neil, H. J.		342 50	
Nelson, P.		145 00	
Pacquette, A.		355 00	
Parent, J.		355 00	
Parker, J. J.		230 00	
Patterson, B.		357 50	
Petrant, Wm.		360 00	
Pirle, J. B.		322 50	
Powell, J.		357 50	
Poulin, Wm.		362 50	
Prendergast, R. H.		362 50	
Reesor, G. O.		347 50	
<i>Carried forward</i>		29,619 01	278,464 73

Appendix No. 6.—Continued.

Service.	\$ c.	\$ c.	\$ c.
<i>Brought forward</i>		29,619 01	278,464 73
<i>FOREST RESERVES.—Continued.</i>			
<i>Temagami Reserve.—Concluded.</i>			
Sage, P.		345 00	
Sauve, J.		317 50	
Scully, James		322 50	
Simpson, T.		347 50	
Smith, E. J.		345 00	
Stewart, E. B.		182 50	
Street, H. W.		307 50	
Thorpe, Thos.		365 00	
Throthier, J.		347 50	
Tremblay, J.		355 00	
Vivaris, D.		915 00	
Wallace, A.		347 50	
White, J.		267 50	
White, W. J.		335 00	
White, Jos. W.		357 50	
Whitmore, Rouse		237 50	
Wilson, B.		360 00	
Wilson, A.		345 00	
Wilding, C. H.		115 00	
Winder, A.		347 50	
Young, R. J.	850 00		
Disbursements	457 70		
		1,307 70	
<i>Metagami Reserve.—\$7,936.76.</i>			
Allan, Geo.		390 00	
Baker, Wm.		390 00	
Benn, H. F.		320 00	
Bingham, A. P.		277 50	
Blackwell, J. J.		352 50	
Burden, J.	915 00		
Disbursements	419 26		
		1,334 26	
Butler, W. J.		330 00	
Cameron, W. J.		347 50	
Cayen, J. B.		355 00	
Chubb, G. W.		350 00	
Dougherty, A. E.		355 00	
Freele, L. W. M.		352 50	
Harvey, C. B. S.		347 50	
Hendy, F.		327 50	
Hunter, H. J.		347 50	
Lawrence, C. F.		172 50	
McFayden, Jas.		425 00	
Papineau, Joe.		17 50	
Poulin, D.		352 50	
Schrubsole, E. W.		237 50	
Vine, Robt.		237 50	
Williams, S.		317 50	
<i>Mississaga Reserve.—\$18,722.89.</i>			
Acheson, D.		576 00	
Bebée, M. C. G.		325 00	
Bellanger, T.		337 50	
Best, H.		335 00	
Bishop, Frank		170 00	
Burch, Wm.		357 50	
<i>Carried forward</i>		47,826 97	278,464 73

Appendix No. 6.—Continued.

Service.	\$ c.	\$ c.	\$ c.
<i>Brought forward</i>		86,134 78	278,464 73
FOREST RESERVES.— <i>Concluded.</i>			
<i>Sibley Reserve, \$832.50.</i>			
Hornick, Geo.		355 00	
Oliver, J. A.		100 00	
Quinn, J. J.		377 50	86,967 28
FORESTRY.			
Bell Telephone Company	43 60		
Express and Cartage	180 15		
		223 75	
Supplies		2,649 65	
Labor		5,881 49	
Sundries		209 30	8,964 19
MINES AND MINING.			
Miller, W. G., Provincial Geologist, services.....		4,550 00	
Knight, C. W., 1st Assistant Geologist, services.	2,250 00		
Disbursements	759 52		
		3,009 52	
Burrows, A. G., 2nd Assistant Geologist, services..	2,150 00		
Disbursements	595 90		
		2,745 90	
Hopkins, P. E., 3rd Assistant Geologist, services..	1,500 00		
Disbursements	913 24		
		2,413 24	
Rogers, W. R., Topographer, services.....	1,851 00		
Disbursements	38 97		
		1,888 97	
Bell, W. J., Cartographer, services		1,466 54	
Mickle, G. R., Mine Assessor, services	4,000 00		
Disbursements	484 85		
		4,484 85	
Godson, T. E., Mining Commissioner, services...	4,300 00		
Morris, W. H., Mining Commissioner's Clerk,			
services	1,500 00		
Disbursements	1,087 28		
		6,887 28	
Sutherland, T. F., Chief Inspector of Mines,			
services	2,500 00		
Disbursements	492 20		
		2,992 20	
Collins, E. A., 1st Assistant Inspector of Mines,			
services	2,300 00		
Disbursements	1,502 26		
		3,802 26	
McMillan, J. G., 2nd Assistant Inspector of Mines,			
services		2,281 72	
Bartlett, J., 3rd Assistant Inspector of Mines,			
services	2,300 00		
Disbursements	1,275 58		
		3,575 58	
Stovel, J. H., 4th Assistant Inspector of Mines,			
services	1,341 67		
Disbursements	605 64		
		1,947 31	
<i>Carried forward</i>		42,045 37	374,896 20

Appendix No. 6.—Continued.

Service.	\$ c.	\$ c.	\$ c.
<i>Brought forward</i>		42,045 37	374,396 20
<i>MINES AND MINING.—Concluded.</i>			
McArthur, T. A., Inspector of Recorders' Offices, services	700 00		
Disbursements	414 90	1,114 90	
Baker, Prof. M. B., services	1,113 46		
Disbursements	425 94	1,539 40	
Beno, J. W., services	301 90		
Disbursements	220 62		
		522 52	
Dyer, W. S., services		242 31	
Ellsworth, Dr. H. V., services	288 46		
Disbursements	38 00	326 46	
Hutchinson, R. H., services	242 31		
Disbursements	16 10	258 41	
Jackson, P. A., services	346 50		
Disbursements	17 70	364 20	
Ledoux, Prof. A., services	450 00		
Disbursements	225 53	675 53	
Near, A. E., services	600 00		
Disbursements	175 45	775 45	
Parsons, A. L., services	274 04		
Disbursements	368 10	642 14	
Rothwell, T. E. Disbursements		23 35	
Scott, John, services	700 00		
Disbursements	246 73	946 73	
Thompson, Ellis, services	360 58		
Disbursements	464 76		
		825 34	
Todd, E. W., services		439 61	
Wheatley, A. C., services		230 76	
King's Printer		336 97	
Express		4 95	
Telegraphing		94 48	
Sundries		115 13	
			51,524 01
<i>MINING RECORDERS.</i>			
Campbell, C. A., Recorder	900 00		
Glazier, M. B., Clerk	31 15		
Loudon, W. E., Clerk	100 38		
Shanahan, Miss M., Stenographer	483 08		
Disbursements	445 50	1,960 11	
Gauthier, G. H., Recorder	1,500 00		
O'Brien, J. D., Clerk	1,026 56		
Loudon, W. E., Clerk	38 07		
Disbursements	836 31	3,400 94	
<i>Carried forward</i>		5,361 05	425,920 21

Appendix No. 6.—Continued.

Service.	\$ c.	\$ c.	\$ c.
<i>Brought forward</i>		5,361 05	425,920 21
MINING RECORDERS.—<i>Concluded.</i>			
Hough, J. A., Recorder	1,200 00		
Browning, A. J., Clerk	333 00		
Ginn, H. G., Clerk	905 73		
Loudon, W. E., Clerk	273 45		
Powers, Miss E. M., Stenographer	95 00		
Disbursements	1,153 85	3,961 03	
Miller, N., Recorder	1,000 00		
Disbursements	220 25	1,220 25	
Morgan, J. W., Recorder	1,000 00		
Glazier, M. B., Clerk	273 46		
Morgan, M. R., Clerk	258 46		
Disbursements	412 57	1,944 49	
Morgan, M. R., Recorder	381 73		
Disbursements	191 65	573 38	
McAulay, N. J., Recorder	1,800 00		
Sarsfield, J. M., Clerk	1,200 00		
Louden, W. E., Clerk	152 32		
Munro, Miss E., Stenographer	785 00		
Disbursements	786 80	4,724 12	
McQuire, H. F., Recorder	500 00		
Disbursements	150 00	650 00	
Sheppard, H. E., Recorder	1,000 00		
Disbursements	184 45	1,184 45	
Skill, A., Recorder	1,200 00		
Browning, A. J., Recorder	733 33		
Disbursements	590 11	2,523 44	
Spry, W. L., Recorder	750 00		
Disbursements	128 25	878 25	
Express	131 05		
King's Printer	808 16		
Methodist Book and Publishing House	21 31		
Telegraphing	19 45	979 97	
			24,000 43
PROVINCIAL ASSAY OFFICE.			
Kleiman, Samuel		16 00	
Leat, Arthur		104 00	
McNeill, W. K.		1,800 00	
O'Neill, Mark		182 00	
O'Neill, James		96 00	
Rothwell, T. E.	1,200 00		
Disbursements	120 05	1,320 05	
Todd, E. W.		540 00	
Supplies	499 05		
Disbursements	99 48	598 53	
<i>Carried forward</i>			4,656 58
			454,577 22

Appendix No. 6.—Continued.

Service.	\$ c.	\$ c.	\$ c.
<i>Brought forward</i>			454,577 22
CULLERS' ACT.			
Duff, A. S. ....Services..	12 00		
Disbursements	4 00		
		16 00	
McDougall, J. T. ....Disbursements..		13 30	
Oliver, J. A. ....Disbursements..		7 75	
Watts, Geo. ....Disbursements..		7 90	
			44 95
EXPENSES NOT OTHERWISE PROVIDED FOR.			
Gamble, W. P., Services <i>re</i> : Investigation of effect of Sulphur fumes	60 00		
Howitt, J. E., Disbursements <i>re</i> : Investigation of effect of Sulphur fumes	31 45		
Martin, N. R., Services	471 15		
Disbursements	331 90		
<i>re</i> : Investigation of effect of Sulphur fumes		894 50	
Kirkpatrick, J., Services <i>re</i> : Toronto Exhibition..	22 00		
McNeill, W. K., Services <i>re</i> : Toronto Exhibition..	75 00		
Searls, J. Y., Services <i>re</i> : Toronto Exhibition...	46 00		
Shaw, David, Services <i>re</i> : Toronto Exhibition...	20 00		
West, W. J., Services <i>re</i> : Toronto Exhibition...	42 50		
General Disbursements <i>re</i> : Toronto Exhibition...	1,106 75		
		1,312 25	
			2,206 75
SURVEYS			63,884 33
BOARD OF SURVEYORS			200 00
EXPERIMENTAL TREATMENT OF ORE			638 25
INVESTIGATION OF TREE DISEASES			5,211 17
INSURANCE			331 06
ALLOWANCE TO SCHOOL SECTIONS IN TOWNSHIP OF SOUTH WALSHINGHAM			150 00
CANADIAN FORESTRY ASSOCIATION, grant			300 00
REFUNDS—Miscellaneous			14,315 32
COLONIZATION AND IMMIGRATION.			
PRINTING, ADVERTISING, ETC.		14,478 89	
BONUSES AND ADVANCES TO AGENTS		40 00	
TRANSPORTATION EXPENSES DISTRIBUTING SETTLERS.		99 00	
LAND GUIDES		619 00	
EMIGRATION WORK IN GREAT BRITAIN		22,112 11	
ALLOWANCE TO RICHARD REID		1,650 15	
RENTAL IMMIGRATION OFFICE		1,582 59	
ADVANCE COST OF FARM LABOURERS' TRANSPORTATION		766 67	
MAINTAINING HOMES		500 00	
WOMEN'S WELCOME HOSTEL		1,400 00	
IMPERIAL TAX		769 66	
			44,018 07
<i>Carried forward</i>			585,877 12

Appendix No. 6.—Concluded.

Service.	\$ c.	\$ c.	\$ c.
<i>Brought forward</i>			585,877 12
CONTINGENCIES.			
<i>Departmental.</i>			
Printing and Binding	3,602 54		
Stationery	4,674 44		
Postage	2,246 34	8,276 98	
Express	194 63		
Telegraphing	511 83		
Car Fare	60 00		
Subscriptions	269 68		
Advertising	3,477 35		
Typewriters and repairs		3,747 03	
Cain, W. C., travelling expenses	25 80	1,054 90	
Ferguson, Hon. G. H., travelling expenses	500 00		
Grigg, A., travelling expenses	20 70		
Hele, C. C., travelling expenses	132 84		
Houser, J., travelling expenses	35 50		
Hutcheon, J., disbursements	768 25		
Keefer, F. H., legal services	20 00		
Niven, F. J., travelling expenses	35 60		
Rorke, L. V., travelling expenses	285 65		
Steel Equipment Company of Canada, Installing Filing System	5,424 03		
Extra Clerks	5,146 92	7,248 37	
Sundries	192 47		
		5,339 39	
BUREAU OF MINES.			28,679 47
Printing and Binding	1,902 82		
Stationery	1,222 20		
Postage	650 98	3,125 02	
Telegraphing	60 07		
Express and Cartage	82 31		
Advertising	991 05		
Subscriptions	250 26		
Maps	3,569 70		
Typewriters, repairs, etc.	342 15	5,604 37	
Fisher, R. D., travelling expenses	4 85		
Nichols, F. J., Preparing Index	900 00		
Rogers, W. R., travelling expenses	47 52		
Ugnow, W. L., Preparing Report on Zinc De- posits in Eastern Canada	250 00		
Extra Clerks	1,657 34	1,544 52	
Sundries	153 81		
		1,811 15	
FORESTRY.			12,085 06
Zavitz, E. J., travelling expenses	312 29		
Newman, F. S., travelling expenses	118 00		
White, J. H., travelling expenses	14 15		
Postage,	138 50	444 44	
Supplies	244 18		
Sundries	179 18		
		561 86	
COLONIZATION.			1,006 30
			1,848 20
			629,496 15

D. GEO. ROSS,
Accountant.ALBERT GRIGG,
Deputy Minister of Lands and Forests.

Appendix No. 7.

Statement of Expenses on account of various Services under the direction of the Department of Lands, Forests and Mines for the year ending October 31st, 1916.

Service.	\$	c.	\$	c.
ALGONQUIN PARK	30,010	30		
ALGONQUIN PARK, EXTINGUISHING SQUATTERS' CLAIMS	10	00		
ALGONQUIN PARK, CLEANING RIGHT-OF-WAY	5,452	83	35,473	13
QUETICO PROVINCIAL PARK			11,268	87
VETERANS' COMMUTATION			600	00
ROYAL NICKEL COMMISSION			37,578	14
LEGAL INVESTIGATIONS			700	00
DOMINION REDUCTION CO., Gold Quartz			9,955	76
BOUNTY ACT, EDWARD VII., CAP. 14.				
Deloro Mining and Reduction Co.	11,650	02		
Coniagas Reduction Co., Ltd.	11,555	67		
Metals Chemical Co., Ltd.	2,345	22	25,550	91
			121,126	71

D. GEO. ROSS,
Accountant.

ALBERT GRIGG,
Deputy Minister of Lands and Forests.

Appendix No. 8.

PATENTS OFFICE (LANDS BRANCH).

Statement of Patents, etc., issued from 1st November, 1915, to 31st October, 1916.

Public Lands (late Crown).....	505
" " (late School).....	16
" " (late Clergy Reserves).....	7
" " (University).....	19
Free Grant Lands (Act of 1913)	395
" " (Act of 1901) (Veterans)	92
Mining Lands (Patents).....	402
Mining " (Leases).....	163
Crown Leases.....	18
Licenses of Occupation.....	43
Temagami Leases.....	4
Sand and Gravel Leases	5
Total.....	1,669

CHARLES S. JONES,
Clerk in Charge.

ALBERT GRIGG,
Deputy Minister.

Appendix

WOODS AND

Statement of Timber and Amounts accrued from Timber Dues, Ground

QUANTITY AND

Agencies.	Area covered by timber license.	Saw logs.				Boom and	
		Pine.		Other.		Pine.	
	Square miles.	Pieces.	Feet B.M.	Pieces.	Feet B.M.	Pieces.	Feet B.M.
Western Timber District	11,377	6,698,293	260,853,223	801,573	27,683,608	92,863	9,486,659
Belleville Timber District	507	144,087	2,556,900	117,067	3,678,027	1,082	133,450
Ottawa Timber District	3,828½	635,325	32,934,817	249,456	5,329,052	6,051	699,104
	15,712½	7,477,705	296,344,940	1,168,096	36,690,687	99,996	10,319,213

General Statement

Agencies.	Cordwood.		Tan Bark.	Railway Ties.	Posts.	Poles.	Stave Bolts.	Pulpwood,
	Hard.	Soft.						
	Cords.	Cords.	Cords.	Pieces.	Cords.	Pieces.	Cords.	Cords.
Western Timber District	6,721	30,623½	4,594	734,798	3,465	1,608	835	146,895
Belleville Timber District	2,465	.....	526½	506	3	.....	45	2,293
Ottawa Timber District	20	764	1,576	3,293	75	753	.....	20,325
	9,206	31,387½	6,696½	738,597	3,543	2,361	880	169,513

JOHN HOUSER,
Chief Clerk in Charge.

No. 9.

FORESTS.

Rent and Bonus during the year ending 31st October, 1916.

DESCRIPTION OF TIMBER.

Dimension.		Square Timber.		Pine.	Square Timber.		Cedar.	Piling.	Piling.	
Other.		Pine.			Birch.					
Pieces.	Feet B.M.	Pieces	Cubic feet.	Lineal feet.	Pieces	Cubic feet.	Lineal feet.	Lineal feet.	Pieces	Feet B.M.
9,367	1,303,597	1,816	96,851	298,611	142	4,271	1,250	72,282	1,500	135,864
1,473	221,296	.....	.....	.....	.....	.....	.....	11,860	.....	.....
3,601	472,386	.....	.....	.....	.....	.....	.....	.....	302	31,118
14,441	1,997,279	1,816	96,851	298,611	142	4,271	1,250	84,142	1,802	166,982

of Timber.—Concluded.

Amounts accrued.

Transfer bonus.	Interest.	Trespass.	Timber dues.	Bonus.	Deposits timber sales	Ground rent.	Total.
\$ c	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.
3,585 00	11,099 13	15,919 65	678,119 44	448,759 78	81,855 00	63,880 00	1,303,218 00
.....	446 69	2,697 61	8,263 39	749 92	.....	3,500 00	15,657 61
55 00	2,924 04	953 64	60,779 28	.....	.....	21,837 49	86,549 45
3,640 00	14,469 86	19,570 90	747,162 11	449,509 70	81,855 00	89,217 49	1,405,425 06

ALBERT GRIGG,
Deputy Minister.

Appendix No. 10.

WOODS AND FORESTS BRANCH.

Statement of revenue collected during the year ending October 31st, 1916.

	\$	c.
Amount of Western collections at Department.....	1,232,405	95
do Belleville collections ".....	21,844	72
do Ottawa collections ".....	81,070	11
	<u>\$1,335,320</u>	<u>78</u>

WOODS AND FORESTS BRANCH REVENUE.

October 31st, 1916.

WESTERN DISTRICT—

Timber dues	\$734,436	73
Bonus	337,550	09
Ground Rent	63,880	00
Interest on dues	10,955	94
Interest on Ground Rent	143	19
Transfer fees	3,585	00
Timber Sale Deposits.....	81,855	00
	<u>\$1,232,405</u>	<u>95</u>

OTTAWA DISTRICT—

Timber dues.....	56,253	58
Ground Rent.....	21,837	49
Interest on dues	2,785	21
Interest on Ground Rent	138	83
Transfer fees	55	00
	<u>81,070</u>	<u>11</u>

BELLEVILLE DISTRICT—

Timber dues.....	17,475	18
Bonus	422	85
Ground Rent.....	3,500	00
Interest on dues.....	426	17
Interest on Ground Rent	20	52
	<u>21,844</u>	<u>72</u>
	<u>\$1,335,320</u>	<u>78</u>

WOODS AND FORESTS.

Bonus	\$419,827	94
Timber dues.....	822,332	81
Ground Rent.....	89,520	03
Transfer fees	3,640	00
	<u>\$1,335,320</u>	<u>78</u>

JOHN HOUSER,
Chief Clerk in Charge.ALBERT GRIGG
Deputy Minister.

Appendix No. 11.

Statement of work done in the Military office, Lands branch of the Department of Lands, Forests and Mines, during the year ending October 31st, 1916.

References for Veteran Patents issued.....	132
Locations under military certificates.....	76
Certificates applied in payment of lands	18
Certificates surrendered for commutation money	12
Letters received	3,550
Letters written.....	3,200
Special letters to agents	740
Special letters to mining recorders.....	190
Maps and reports supplied to veterans	1,050
Printed forms sent out	300
Copies of Veteran Act supplied	60

H. E. JOHNSTON,
Clerk in Charge.

ALBERT GRIGG,
Deputy Minister.

Appendix No. 12.

LIST OF CULLERS.

Anderson, M. M.....	Almonte.	Brown, Silas.....	Klock's Mills.
Allan, James D.....	Bracebridge.	Boland, W. G.....	Eganville.
Appleton, Erwin B.....	Bracebridge.	Baulke, George R.....	Aylmer, Que.
Albert, Andrew.....	Ottawa.	Bouchey, Arthur.....	Massey.
Adams, J. Q.....	Longford Mills.	Buchanan, Mark.....	Trout Mills.
Anderson, Patrick J.....	Campbellford.	Barrett, W. J.....	Thessalon.
Anderson, J. C.....	Gravenhurst.	Bromley, Thomas.....	Pembroke.
Allan, Alfred.....	Ottawa.	Bremner, John L.....	Adamston.
Allen, R. A.....	Bannockburn.	Breen, Bernard.....	Garden River.
Aikens, Geo. M.....	French River.	Buie, Dougal.....	Providence Bay.
Appleby, Ridley.....	Katrine.	Baker, Thomas.....	Blind River.
Adams, James M.....	Sault Ste. Marie.	Blais, Felix.....	Hull, Que.
Aylward, James.....	Peterborough.	Balsdon, George.....	Keewatin.
Archibald, John L.....	Keewatin.	Bromley, W. H.....	Pembroke.
Austin, Wm. G.....	Renfrew.	Bowers, Isaac.....	Little Current.
Anderson, Charles.....	Little Current.	Brown, Thomas.....	Barrie.
Anderson, John.....	Cartier.	Bass, Walter R.....	W. Huntingdon.
Adair, Thomas Albert.....	Gananoque.	Bates, Robert.....	Kenora.
Anderson, J. G.....	Alpena, Mich.	Binnie, Thomas.....	Port Arthur.
Alexander, Samuel.....	Arden.	Blair, William.....	Keewatin.
Adams, Wm.....	Westmeath.	Bick, Thomas.....	Bobcaygeon.
Arkle, George.....	Kenora.	Burke, John Thomas.....	Midland.
Armstrong, Jas. Theodore.....	McKellar.	Buchan, Sterling.....	L'Orignal.
Armstrong, Thomas J.....	Arnprior.	Brown, Joseph A.....	Spanish.
Acheson, Ira M.....	Westmeath.	Baird, P. C.....	Rainy River.
Albert, Alfred E.....	Ottawa.	Brill, J. W.....	Mine Centre.
Alma, John E.....	Hawkesbury.	Beattie, Arthur W.....	Arnprior.
Adams, George A.....	Longford.	Brock, H. S.....	Ottawa.
Ansley, John Albert.....	Thessalon.	Benson, John Bird.....	Midland.
Ansley, John Jenkins.....	Thessalon.	Brennan, Rich'd Lawrence.....	Peterborough.
Ainslie, Alexander.....	Spanish.	Brown, Hugh Riside.....	Huntsville.
Apleton, E. A.....	Kenora.	Bryan, Frank.....	Keewatin.
Arnill, William.....	Iron Bridge.	Bennett, Edward Clinton.....	Ahmie Harbour.
Adams, Fred.....	L'Orignal.	Blaine, Harvie Thomas.....	Orillia.
Alexander, R. Harvey.....	Spragge.	Barrett, Thomas.....	Barrie.
Alexander, J. Albert.....	Spragge.	Bickell, James Manuel.....	Sault Ste. Marie.
Ainslie, Donald McF.....	Whitestone.	Buisson, William.....	Sudbury.
Ansley, William.....	Thessalon.	Borrett, James A.....	Sault Ste. Marie.
Argue, W. A.....	Kearney.	Bliss, C. Lidden.....	Sudbury.
Almers, John.....	Kenora.	Bray, James.....	Kinmount.
Allard, Telesphore Jos.....	W. Fort William.	Bremner, George.....	Arnprior.
Andrews, Geo. E.....	Massey.	Bromley, Samuel.....	Pembroke.
Brophy, Michael Patrick.....	Massey Station.	Brown, A. C.....	Fitzroy Harbour.
Boland, Abraham.....	Cartier.	Berlinquet, Julius.....	Opimicon, Que.
Brown, Singleton.....	Bracebridge.	Blastorah, Fred L.....	Harwood.
Barry, Thomas James.....	Hastings.	Burns, Clifton H.....	Little Current.
Blanchet, Paul Fred'k.....	Ottawa.	Beaumont, Ernest.....	Parry Sound.
Bird, W. S.....	Parry Sound.	Beattie, Alex.....	Whitney.
Bayley, James T.....	Gravenhurst.	Brennan, Reginald.....	Gravenhurst.
Bell, Henry.....	Ottawa.	Boyd, George.....	Gravenhurst.
Beach, Herbert Mahlon.....	Ottawa.	Bissell, Geo. Thomas.....	Trenton.
Barry, Thomas.....	Millbridge.	Baxter, Richard.....	Deseronto.
Beatty, W. R.....	Parry Sound.	Breeaugh, Edward.....	Deseronto.
Brooks, Frederick Wm.....	Mackay's Station.	Boyd, Geo. A.....	Thessalon.
Brown, Robt. D.....	Port Sidney.	Buchan, Frederick.....	Arnprior.
Breed, Arthur G.....	Penetanguishene.	Bradbury, Kerwood.....	Blind River.
Barnes, Thomas Geo. Lee.....	Muskoka Mills.	Belanger, John B.....	Mattawa.
Buchanan, Robert.....	Coldwater.	Bird, J. F.....	Bracebridge.
Beck, Jacob Frederick.....	Penetanguishene.	Beddome, W. E.....	Dryden.
Bird, Joseph Manly.....	Muskoka Mills.	Barrett, Patrick.....	Arnprior.
Boyd, John F.....	Thessalon.	Brundage, Alfred W.....	Pembroke.
Brandon, Martin W.....	Peterborough.	Brougham, Thomas.....	Eganville.
Bell, John C.....	Peterborough.	Blair, Robert L.....	Arnprior.
Bartlett, George W.....	Warren.	Benson, John W.....	Sturgeon Bay.

Appendix No. 12.—Continued.

LIST OF CULLERS.—Continued.

Beck, Chas. M., Jr.....	Penetanguishene.	Cochrane, George.....	Peterboro.
Beatty, W. J.....	Coldwater.	Coburn, John.....	Lindsay.
Burns, C. W., Jr.....	South River.	Crewe, Nathaniel.....	Bobcaygeon.
Bell, John Henry.....	Burk's Falls.	Cameron, Alexander.....	Norman.
Berry, Harold.....	Labelle, Q.	Chrysler, Frank R. L.....	Webbwood.
Black, George.....	Barwick.	Callaghan, Thomas, Jr.....	Campbellford.
Bettes, John Hiram.....	Muskoka Mills.	Carson, Hugh.....	Kenora.
Brady, John.....	Renfrew.	Calder, George.....	Woodville.
Brown, James.....	Buckingham, Q.	Callaghan, Dennis.....	Campbellford.
Brooks, W. J.....	Blind River.	Corrigan, Robt. T.....	Emo.
Bertrand, Allan.....	Nairn Centre.	Cameron, John H.....	Kenora.
Brinkman, Alex. B.....	Sault Ste. Marie.	Carson, Melvin.....	Little Current.
Black, Jacob.....	Barwick.	Cameron, John K.....	Spanish River.
Beattie, W. J.....	Arnprior.	Cassidy, William.....	Little Current.
Bromley, William.....	Westmeath.	Coons, Geo. Washington.....	Peterboro.
Bissell, Hartie.....	Trenton.	Chisholm, Geo. Leopold.....	Sault Ste. Marie.
Brown, Robert.....	Starrat.	Clark, Wm. J.....	Birkendale.
Beaton, Hugh.....	Waubauskene.	Carr, Herbert E.....	North Bay.
Bailey, Arthur.....	Parry Sound.	Cochrane, Alfred L.....	Muldoon, Que.
Burd, James Henry.....	Parry Sound.	Campbell, George.....	Fort Frances.
Bailey, Samuel James.....	Orillia.	Chalmers, George James.....	Peterboro.
Burton, Tinswood.....	Renfrew.	Caverly, David Charles.....	Parry Sound.
Boyes, James.....	Huntville.	Campbell, Archibald J.....	Little Current.
Brown, John.....	Rockdale.	Close, John L.....	Arnprior.
Brennan, Edward Scott.....	Sundridge.	Carmichael, Donald.....	Arnprior.
Bell, John Arguey.....	Klock's Mills.	Carty, John.....	Arnprior.
Bromley Edw. H.....	Pembroke.	Cleary, Patrick M.....	Arnprior.
Bliss, Lawrence E.....	Byng Inlet.	Caldwell, James M.....	Callender.
Buee, Neil.....	Spanish Station.	Cushing, John J.....	Davidson, Que.
Brazziel, Leonard.....	Spanish Station.	Crebo, William.....	Thessalon.
Bowie, James.....	Bryson, Que.	Cullen, Michael J.....	Massey Station.
Barrie, Nicholas J.....	Ottawa.	Cuthbertson, William.....	Arnprior.
Burke, J. D.....	Kenora.	Carss, Percy.....	Thessalon.
Bowen, Thomas.....	Deseronto.	Coghlan, Michael.....	Chapeau, Que.
Brown, James F.....	Baysville.	Cameron, Alexr. Gordon.....	Beauchene, Q.
Blastorah, Bernard.....	Harwood.	Cassaday, W. W.....	Emo.
Brannan, William H.....	Pembroke.	Carter, Robert E.....	Fesserton.
Bromley, Thomas.....	Webbwood.	Coleman, Jos.....	Baysville.
Barr, J. C.....	Fort Frances.	Cardiff, Geo. McDougall.....	Sudbury.
Bradley, J. M.....	Mine Centre.	Cameron, W. D.....	Kenora.
Burns, Dominick.....	Webbwood.	Crandal, F.....	Port Arthur.
Blaikie, Campbell D.....	Fort Frances.	Campbell, James R.....	Eganville.
Bury, Henry J.....	Stratton.	Campbell, John A.....	Galleta.
Brown, R. A.....	Cartier.	Caillier, Hyacinth.....	Arnprior.
Brouse, Silas.....	Webbwood.	Chamberlain, Thomas.....	Bobcaygeon.
Byrne, James.....	Kenora.	Cooper, David Allan.....	Millbrook.
Buchan, A.....	Ft. William.	Cox, Henry.....	Ballerica, Que.
Bailey, Alex.....	Thor Lake.	Currie, James.....	Ottawa.
Bennett, Oscar T.....	Little Current.	Clarkson, A. E.....	Midland.
Campbell, Robert John.....	Flinton.	Clairmont, E.....	Gravenhurst.
Carpenter, John A.....	Arnprior.	Cameron, W. F.....	Sturgeon Bay.
Campbell, Alex. J.....	Trenton.	Connolly, David.....	Gravenhurst.
Carson, James.....	Bracebridge.	Campbell, P. C.....	Sault Ste. Marie.
Campbell, J. M.....	Bracebridge.	Cadenhead, Alexander.....	Midland.
Campbell, Robert.....	Bracebridge.	Carpenter, R. J.....	Arnprior.
Clairmont, Joseph.....	Campbellford.	Christie, William Pringle.....	Severn Bridge.
Clarkson, Robert J.....	Parry Sound.	Campbell, C. V.....	Sault Ste. Marie.
Carruthers, Aaron.....	Hintonburg.	Clegg, Samuel.....	Peterboro.
Calder, Wm. J.....	Bark Lake.	Clairmont, William L.....	Gravenhurst.
Chew, Joseph.....	Gravenhurst.	Cook, Sydney P. W.....	Spanish Station.
Cole, James Colin.....	Ottawa.	Corrigan, John.....	Baysville.
Cameron, Wm.....	Collin's Inlet.	Chalmers, Alexander M.....	Peterboro.
Cain, Robert.....	Midland.	Charlton, George A.....	Collingwood.
Crawford, Stephen W.....	Thessalon.	Cahill, Thomas.....	Nosbonsing.

Appendix No. 12.—Continued.

LIST OF CULLERS.—Continued.

Chew, Manley	Midland.	Dillon, John	Calabogie.
Cooper, James Eddly	Saurin.	Durrell, Jos. Nelson	P't'ge du Ft., Q.
Cook, Reinhardt	South River.	Durrell, John	Callender.
Crowe, Cecil	Bobcaygeon.	Donally, Richard S.	Sudbury.
Callaghan, Denis	Trenton.	Devine, William	Cook's Mills.
Collins, James	Barryville.	Durrill, William	Nosbonsing.
Claffey, Edward D.	Fort William.	Draper, Patrick	Quyon, Que.
Coyne, Phin	Chelmsford.	Davis, J. P.	Bobcaygeon.
Constantine, Eudore	Blind River.	Dale, John Alexander	Birkendale.
Cameron, Ewan	Gordon Lake.	Dinsmore, Chas. L.	Huntsville.
Campbell, Daniel N.	Buck'gham, Que.	Drum, Patrick	Belleville.
Canniff, R. W.	Kenora.	Durham, Edgar S.	Rosseau.
Cassidy, S. C.	Dunchurch.	Duquette, Chas.	Webbwood.
Charleston, John Baptiste ..	Ottawa.	Davis, William Albert	Bobcaygeon.
Comer, Billa F.	Tweed.	Dickson, Robert Alexander ..	Keene.
Carter, George	Sundridge.	Dawkins, John	Gravenhurst.
Corrigan, Robt. J.	Emo.	Doxsee, James E.	Gravenhurst.
Caswell, Grant	Coldwater.	Didier, L. P.	Aylmer, Que.
Caswell, Geo.	Coldwater.	Devine, Patrick J.	Sheenboro, Que.
Chemir, David A.	Pembroke.	Dinsmore, Richard	Huntsville.
Clairmont, Philadelp L.	Gravenhurst.	Dunn, Percy E.	Longford Mills.
Crowe, Edgerton	Bobcaygeon.	Duval, Chas.	Halfway.
Castonquay, A. C.	Chelmsford.	Donlevy, James	Calabogie.
Clark, Donald Allan	Port Arthur.	Doris, Patrick	Peterborough.
Charette, Herbert	Devlin.	Doris, John	Peterborough.
Christie, Uriah W.	Fort Frances.	Donahue, Michael	Erinsville.
Clark, Joseph C.	Fort Frances.	Doran, W.	Belleville.
Crowe, Leslie	Bobcaygeon.	Dickson, Robert R.	Kippewa, Que.
Campbell, Duncan W.	Stewartville.	Donlevy, Wm. C.	Rockcliffe.
Callahan, Thomas N.	Arnprior.	Duff, Chas. A.	Stewartville.
Clements, Albert James ..	Bent River.	Dean, James C.	Kenora.
Carney, Albert	Sault Ste. Marie.	Duff, Peter A.	Claybank.
Corrigan, Arthur	Massey Station.	Duncan, Downey	Rainy River.
Carter, George	Lavelle, Que.	Dougherty, J. M.	Fort Frances.
Chitty, Alfred E.	Kenora.	Dunn, John F.	Spanish Mills.
Cardiff, Richard J.	Arnprior.	Dyke, Morris F.	Blind River.
Conway, Thomas	Barry's Bay.	Devitt, Frank	Dinorwic.
Costello, Thomas M.	Antrim.	Dickie, David	Port Arthur.
Cross, R. J.	Silver Islet.	Dupuis, Alfred	Keewatin.
Clark, R. H.	Port Arthur.	Devlin, Samuel	Spanish Mills.
Clark, Wm. R.	Port Arthur.	Dougherty, W. H.	McLaren's Bay.
Coombs, A. B.	Bracebridge.	Duffy, William A.	Callender.
Cameron, A. F.	Emo.	Duncan, Edward J.	Sturgeon Falls.
Campbell, J. S.	Fort Frances.	Dennie, Frank	Capreol.
Clearihue, Geo. A.	{ 784 Hubert St., Montreal, Que.	Enlaw, Oliver	Campbellford.
Cuddihey, J. T.	Pembroke.	Ebert, Andrew P.	Pembroke.
Cameron, Ronald	Ignace.	Ellis, Alexander	Arnprior.
Cole, J. E.	Kenora.	Ellis, John	Westmeath.
Currie, J. E.	Kenora.	Errington, Joseph	Sundridge.
Clempson, A. J.	Dryden.	Eddington, Henry John	Parry Sound.
Didier, Hector	Mattawa.	Enright, Daniel	Port Arthur.
Doran, Frank	Barryvale.	Eager, James	Parry Sound.
Dunning, E. Percival	Parry Sound.	Elliott, Porter P.	Mine Centre.
Duff, R. J.	Arnprior.	Elliott, William	Cache Bay.
Durrill, John W.	Ottawa.	Edgar, J. E.	Kenora.
Dickson, John	Sundridge.	Elliott, George E.	Peterborough.
Dickson, James L.	Michipic'ten Hr.	Edwards, Joseph K.	Gillies Depot.
Dobie, Harry	Sault Ste. Marie.	Eldridge, Robert	Fort Frances.
Deacon, Charles	Sault Ste. Marie.	Fraser, John A.	Kenora.
Danter, R. W.	Parry Sound.	Ferguson, Wm. H.	Red Bay.
Doyle, T. J.	Eau Claire.	Forbes, Chris. McKay	McLean's Depot.
Dobie, Alexander R.	Blind River.	Fitzgerald, E. Clair	Parry Sound.
Darling, J. M.	Byng Inlet.	Farrell, W. H.	Ironside, Que.
		French, Lewis William	Wisawasa.

Appendix No. 12.—Continued.

LIST OF CULLERS.—Continued.

Fraser, William A.....	Mattawa.	Green, Forman A.....	Gilmour.
Finerty, Patrick.....	Rochfort.	Green, Samuel E.....	Parry Sound.
Farnand, Frank.....	Diamond.	Grant, John.....	Flinton.
Fulton, Philip S.....	Spanish Station	Green, Arthur.....	Ottawa.
Fitzgerald, Ulyot C.....	Parry Sound.	Green, Norman McL.....	Bancroft.
Fenn, George.....	Bracebridge.	Gillis, John J.....	Whitefish.
Fortune, Owen.....	Trenton.	George, R. W.....	Parry Sound.
Fraser, David.....	Norman.	Gardiner, John.....	Parry Sound.
France, John.....	Collin's Inlet.	Golden, Frank J.....	Trenton.
Ferguson, Ernest A.....	Baysville.	Garson, Robert.....	Thessalon.
Ferguson, Alpen.....	Mattawa.	Gropp, August.....	Penetanguishene.
Ford, John William B....	P'r'tage du Ft., Q.	Grozelle, Antoine D....	Muskoka Mills.
Ford, Charles.....	Wahnapiatae.	Goulais, James.....	Peterborough.
Findlay, J. H.....	Braeside.	Grayson, Charles.....	Keewatin.
Fraser, James.....	Renfrew.	Gladstone, Harry E....	Cook's Mills.
Fairen, Francis.....	Peterborough.	Guertin, Oliver.....	Biscotasing.
Faulkner, Jos.....	Fesserton.	Gelinas, Frank.....	Hull, Que.
Fraser, Alexander, Jr....	Westmeath.	Gwynne, John.....	Hawkesbury.
Fairbairn, William.....	Calabogie.	Gray, Frederick M.....	Brule Lake.
Fraser, William A.....	Pembroke.	Graham, Edward G.....	Wahnapiatae.
Fraser, Foster.....	Pembroke.	Griffin, James.....	Spanish River.
Fraser, Wm.....	Little Current.	Gordon, Alexander B....	Pembroke.
Fraser, Hugh Alexander..	Pembroke.	Gâteau, Noah J.....	Pembroke.
Flaherty, John.....	Lindsay.	Gillies, D. A.....	Carleton Place.
Fisher, Wm.....	Trenton.	Gilligan, Edward.....	Mattawa.
Fox, Thomas.....	Deseronto.	Gladman, Charles.....	Parry Sound.
Fallis, James W.....	Sturgeon Bay.	Garrow, John D.....	Ottawa.
Fairbairn, N. H.....	Webbwood.	German, William Burton.	Wahnapiatae.
Friel, John.....	Trenton.	Gordon, Robert W.....	Pembroke.
Fox, Charles.....	Trenton.	Guertin, Nelson.....	Petawawa.
Featherstonehaugh, W. H.	Penetanguishene.	Gardner, John.....	Kenora.
Friar, Schuyler.....	Westmeath.	Gunter, Peter M.....	Gilmour.
Farren, Joel.....	Savanne.	Glennie, William.....	Millbridge.
Fraser, Duncan.....	Big Forks.	German, Maurice J.....	Fenelon Falls.
Freestone, Walter.....	Burk's Falls.	Gillies, John A.....	Braeside.
Fraser, John.....	Bancroft.	Goddin, Edward.....	Griffith.
Fitzgerald, D. C.....	Spanish Station.	Grant, Joseph.....	Eganville.
Foster, Wm. C.....	Searchmont.	Gilmour, James B.....	Braeside.
Frazer, Jas. C.....	Spanish Mills.	Gorman, Joseph P.....	Sault Ste. Marie.
Fremlin, H. P.....	Richards' Land'g.	Gordon, Thomas A.....	Hall's Bridge.
Foster, Ed. G.....	Sault Ste. Marie.	Gray, Albert H.....	Biscotasing.
Farrel, Peter M.....	Whitefish.	Gadway, John.....	Parry Sound.
Fairhall, Edward.....	Whiteside.	Garrow, Edward.....	Webbwood.
Fraser, Levi.....	Bracebridge.	Golding, William.....	Dorset.
Fiddes, James.....	Rainy River.	Gillies, Harry.....	White Lake.
Frawley, Frank.....	Orillia.	Gordon, Herbert C.....	Nelson.
Fisher, George.....	Sault Ste. Marie.	Gillespie, M. H.....	Cook's Mills.
Filiatrault, J. A.....	Blind River.	Griffin, William.....	Huntsville.
Farrier, John William....	Chapeau.	Ganton, David.....	Trout Creek.
Finney, Benjamin B.....	Fort Frances.	Graham, George L.....	Arnprior.
Follis, Frank C.....	Hawkesbury.	Graham, Frederick S....	Arnprior.
Fortune, Percy H.....	Blind River.	Gill, Cuthbert.....	Orillia.
Fraser, Wm. Foster.....	Sault Ste. Marie.	Graham, James Robert...	Kenora.
Fraser, Allan H.....	Thessalon.	Graham, Thomas Jordan.	Byng Inlet.
Farquharson, James.....	Tomiko.	Gaudaur, Antoine Daniel.	Orillia.
Fink, John.....	Mattawa.	Gorman, Patrick.....	Eganville.
Fletcher, Nicol B.....	Parry Sound.	Guy, Charles.....	Fort Frances.
Fraser, Darlington.....	Pembroke.	Graham, George H.....	Gillies Depot.
Faulkner, Wm.....	Dryden.	Greer, George P.....	Port Arthur.
Griffith, Geo. F.....	Pembroke.	Gill, Charles.....	Fort Frances.
Graham, John.....	Arnprior.	Gamey, William H.....	Englehart.
Golden, John.....	Gilmour.	Gorman, Michael J.....	Diver.
Gunter, Henry M.....	Trenton.	Grier, Roy B.....	Kenora.
Goltz, Ernest.....	Bardsville.	Greer, Samuel H.....	Gore Bay.

Appendix No. 12.—Continued.

LIST OF CULLERS.—Continued.

Gilbert, Sidney N.....	Rainy River.	Horne, John T.....	Fort William.
Guilbeault, A. T.....	Klock's Mills.	Hamilton, Chas. E.....	Kenora.
Gordon, J. B.....	Cache Bay.	Henderson, Leonard	Baysville.
Gorman, Bert.....	Kenney Siding.	Hunter, Thos.	Callender.
Hale, Thomas	Pembroke.	Hamilton, Robert J.....	Ottawa.
Hogan, Albert J.....	Sault Ste. Marie.	Hawkins, William A.....	Pembroke.
Hagen, Edmund G.....	Little Rapids.	Herring, Edward C.....	Sebright.
Hagen, Wilson.....	Thessalon.	Hatch, J. W.	Dryden.
Hurd, Cyrus	Parry Sound.	Hoard, Wm. Paris	Emo.
Henderson, Albert E.....	Burford.	Hartman, W. R.....	Blind River.
Hale, John B.....	Sault Ste. Marie.	Hill, Ernest L.....	Hawkesbury.
Hickerson, Melvin T.....	Fort Frances.	Hall, Samuel S.....	Marmora.
Howey, George H.....	Fort Frances.	Hasleton, Constantine ...	Killaloe.
Hartt, James.....	Gilmour.	Hamilton, A. J	Spragge.
Hayes, James	Enterprise.	Heggart, E. C.	Trout Mills.
Humphrey, T. W.....	Gravenhurst.	Hunt, Ronald E.....	Massey.
Huckson, A. H.....	French River.	Hurd, Asahel	Parry Sound.
Handley, Robert	Douglas.	Howe, Peter	Fort Frances.
Howe, Alexander	Queensborough.	Hammond, Samuel H....	Fort Frances.
Hurd, Edwin	Hurdville.	Hunt, Alex. D.....	Pearl River.
Huff, J. S. Morris.....	Arnprior.	Home, John F.....	Keewatin.
Halliday, Robert J.....	Lindsay.	Hay, Benjamin	Port Arthur.
Hutton, John	Hutton House.	Hogan, John	Savanne.
Hutchinson, Wm. E.....	Huntville.	Hargis, Thomas	Port Arthur.
Hogarth, Joseph Rowan...	Pembroke.	Hartt, I. B.....	Orillia.
Humphrey, John	Gravenhurst.	Harkins, J. J.....	Keewatin.
Hill, Joshua	Midland.	Hammond, Henry	Dryden.
Hall, David	Lovering	Irving, Thos. H.....	Parry Sound.
Hartley, Charles	Peterborough.	Irwin, Eli	Kenora.
Hawkins, Henry Chas....	Blind River.	Irving, Edward C.....	Kenora.
Hines, Philip Wallace...	Huntville.	Johnston, Ralph E.	Port Arthur.
Hudson, John Lewis	Combermere.	Johns, Frank A.....	Toronto.
Hurdman, William H....	Ottawa.	Jackson, Robert	Brechin.
Hughes, John	North Bay.	Johnson, Finlay	Bracebridge.
Howie, R. G.....	New Liskeard.	Jones, Albert	Victoria Harbor.
Helferty, Dennis	Eganville.	Johnson, Thomas	Bobcaygeon.
Hamilton, Robert	Kenora.	Johnston, Archibald M...	Norman.
Hoppins, Abiram	Kingston.	Julien, Charles	Trenton.
Hoppins, Densmore	Kingston.	Junkin, Henry	Marmora.
Haystead, John	Parry Sound.	Johns, Frank	Nipiss'g Junct'n.
Henderson, John Irwin...	Bobcaygeon.	Jessup, Edward D.....	Cache Bay.
Hartley, William.....	Millbridge.	Johnson, Frank N.....	Ottawa.
Higgins, John C.	Peterborough.	Johnston, John	Peninsular Lake.
Harrison, John, Jr.....	Pembroke.	Johnson, S. M.....	Arnprior.
Hawkins, E.	La Breton Flats.	Jones, Frederick James...	Flinton.
Henderson, Charles	Bracebridge.	Johnston, William A....	Castleford.
Halliday, Frank	Parry Sound.	Jervis, Henry	Wisawasa.
Hammond, W.....	Orillia.	Jones, William	Fenelon Falls.
Hall, Charles Asa	Penetanguishene.	James, Martin	The Flats.
Hearl, John	Callender.	Johnston, James	Fort Frances.
Howe, Isaac	Fort Frances.	Johns, Alexander	Callender.
Halliday, James	Springtown.	Jackson, John A.....	Barwick.
Hurdman, J. A.....	Ottawa.	Johnson, Thomas	Fort Frances.
Hawkins, Stonewall J. ...	Meldrum Bay.	Johnston, George N.....	North Bay.
Hinchcliffe, William.....	Gunter.	Jamieson, John	Fort Frances.
Henderson, Arthur	Baysville.	Jones, Wellard	Ignace.
Hillis, James M.....	Sutton West.	Kintree, Stuart	Little Rapids.
Harris, Wm., Jr.....	Day Mills.	Kerby, John	Belleville.
Hogg, W. J.....	North Bay.	Kennedy, Robert	Marmora.
Hoxie, E. P.....	Katrine.	Kirby, Louis Russell ...	Ottawa.
Hawkins, Walter	Pembroke.	Kennedy, Timothy	Enterprise.
Howard, James	Eganville.	Kirk, Henry	Trenton.
Howard, William	Baysville.	Knox, Milton	Ottawa.
Hogan, Enos W.....	Savanne.	Kinsella, Michael Pierce.	Trenton.

Appendix No. 12.—Continued.

LIST OF CULLERS.—Continued.

Kitchen, D.....	French River.	Lowe, Thomas A.....	Renfrew.
Kelly, Jeremiah	Sudbury.	Livingston, Robert M.	Huntsville.
Kelly, Ferdinand	Mattawa.	Londry, William E.	Sault Ste. Marie.
Kennedy, T. J.....	Arnprior.	Labelle, James	Waltham, Que.
Kenning, Henry	Pembroke.	Labelle, Eli	Waltham, Que.
Kirby, D. F.....	Belleville.	Ladurante, J. D.	Ottawa.
Kirkpatrick, David	Lindsay.	Ludgate, Theodore	Peterborough.
Kean, John F.....	Orillia.	Lucas, Frank	Sault Ste. Marie.
Kellett, Fred	Keewatin.	Lunam, Duncan	Collfield, Que.
Kelly, Michael J.....	Baysville.	Lott, George	Trenton.
Kirk, William James	Webbwood.	Lawrie, John D.	Parry Sound.
Kerr, E. G.....	Thessalon.	Lovering, George Francis.	Coldwater.
King, Napoleon	Mattawa.	Lucas, R. G.	Christina.
Kean, B. F.....	Orillia.	LeBlanc, Edmund C.	Chapleau.
Kemp, Orval Wesley.....	Trenton.	Lavigne, John	Aylmer, Que.
Kirk, Charles Barron	Queensborough.	Landell, Charles S.	Huntsville.
Kingsland, W. P.....	Ottawa.	Long, Henry Elisha	Mattawa.
Kerr, John B.....	Arnprior.	Lynch, W. H.	Collingwood.
Kennedy, Walter	Arnprior.	Laplane, Francis	Byng Inlet.
Kennedy, John	Pembroke.	Lindsay, James	Arnprior.
Knox, Wm. M.....	Fesserton.	Labelle, Michael	Arnprior.
Kingston, Robert	Wisawasa.	Legree, John	Dacre.
Kearnan, Robert	Blind River.	Legree, James L.	Calabogie.
Kearney, Michael John.....	Buckingham, Qu.	Leigh, John Chas.	Gravenhurst.
Kendrick, John	Burk's Falls.	Lloyd, Edward B.	King.
Kendrick, John L.....	Burk's Falls.	Lemyre, Bruno	Gravenhurst.
Kennedy, John W.....	Ottawa.	Lavelle, Charles H.	Canoe Lake.
Kelly, James F.....	Trout Creek.	Lyons, James	Waltham Sta., Q.
Kauffman, Julius	Blind River.	Ledwood, Charles	Ottawa.
Kennedy, Sylvester	Brule Lake.	Levelle, Emrey	Waltham Sta., Q.
Kernahan, George A.....	Barwick.	Little, Theo.	Kenora.
Kehoe, Martin	Huntsville.	Lehman, Joseph	Stratton Station.
Kennedy, Daniel J.....	Spanish.	Lafare, Mark	Cache Bay.
Kay, Arthur.....	Norman.	Leach, George	Vermilion Bay.
Kennedy, Frederick J.....	Buckingham, Qu.	Lott, Angus M.	Spanish Mills.
Leannoth, Francis	Arnprior.	La Belle, Ambrose	Kenora.
Lee, James	Warren.	La Breen, Douglas	Kenora.
Lloyd, Alfred	Severn Bridge.	Lavelle, Michael J.	Blind River.
Lawrie, Frank A.....	Parry Sound.	Lyleton, J. E.	Parry Sound.
Latimer, Jas.	Frank's Bay.	Lalor, William J.	Aspdin.
Lemyre, Middey	Campbellford.	Lalonde, Joseph Maxine.....	Link.
Lutz, Jacob	Parry Sound.	Laderoute, Michael	Arnprior.
Luby, John E.....	Ottawa.	Leroy, Levi H.	Port Arthur.
Law, Wm. J.....	Markstay.	Lusigneau, Arthur	Pembroke.
Lummis, Daniel	Glanmire.	Link, John	Link P.O.
Lowe, W. C.....	Port Arthur.	Love, B.	Port Arthur.
Londry, S. C.....	Sault Ste. Marie.	Landry, Fred S.	Sturgeon Falls.
Lochnan, James	Ottawa.	Malloy Mark	Baysville.
Link, Henry W.....	Ottawa.	Martin, Hugh	Sault Ste. Marie.
Ladarotte, John	Arnprior.	Miller, R. O.	Gravenhurst.
Lochnan, John	Aylmer, Que.	Morrison, James	Toronto.
Lozo, John	Trenton.	Murray, Frederick	Huntsville.
Loughrin, Lawrence.....	Pembroke.	Menzies, Archibald	Burk's Falls.
Linton, J. H.....	Parry Sound.	Manning, James	Trenton.
Ludgate, James	Peterborough.	Martin, Philip	Stoco.
Lee, Robert	Huntsville.	Malone, Wm. Patrick	Ottawa.
Langford, Mark	Baysville.	Marsh, Esli Terrill	Trenton.
Letherby, Edwin	Midland.	Miller, John W.	Huntsville.
Leahy, Francis M.....	Chapleau, Que.	Muchinbacker, Asa	Rousseau Falls.
Langford, Henry	Baysville.	Morris, Geo. F.	French Bay.
Lessard, Philip	Kenora.	Murray, George, Jr.	Waubauskene.
Lovering, William James.	Coldwater.	Maughan, Joseph	Fort William.
Lane, Maurice	Bobcaygeon.	Margach, Wm. J.	Port Arthur.
Lenton, George	Peterborough.		

Appendix No. 12.—Continued.

LIST OF CULLERS.—Continued.

Murray, George, Sr.	Waubauskene.	Morrison, Donald	Reay.
Manice, Wm.	Peterborough.	Moore, Wm.	Bobcaygeon.
Murray, Wm.	Kenora.	Mutchenbacher, Herman ..	Rosseau Falls.
Morgan, Richard J.	Kenora.	Moore, Norman	Arnprior.
Magee, Thomas Arthur ..	Kenora.	Morley, John R.	Kenora.
Murdoch, James	Cook's Mills.	Mackay, J. A.	Big Forks.
Mulvahill, Wm.	Arnprior.	Miller, Robt.	Montreal.
Murphy, Arthur	Ottawa.	Mackey, Levi Ralph	Keewatin.
Mayhew, Jacob	Northcote.	Morley, Frank W.	Kenora.
Molyneaux, George	Parry Sound.	Madden, F. M.	Haileybury.
Milway, Joseph	Fort William.	Miller, Walter E.	Owen Sound.
Mackie, Nathan	Port Arthur.	Murray, Robt.	Berriedale.
Milne, Archie	Arnprior.	Mills, W. J.	Cache Bay.
Murray, James	Peterborough.	Martin, Oscar	Buckingham, Que.
Moore, James A. E.	Lakefield.	Margach, Jas. A.	Kenora.
Merkley, William A.	Ottawa.	Murray, Peter	Emo.
Murphy, Hugh R.	Ottawa East.	Macdermid, Harry	Sellwood Jct.
Murphy, W. J.	Arnprior.	Muckle, John	Keewatin.
Murray, William	Markstay.	Morel, H., Jr.	Mattawa.
Martin, Edgerton	Markstay.	Molyneaux, Harold	Parry Sound.
Mathieson, Archie	Fort Frances.	Marchildon, J. P.	Sturgeon Falls.
Moore, Henry R.	Lakefield.	Main, G. C.	Fort Frances.
Mickle, Chas. S.	Gravenhurst.	Marr, H. J.	Superior Jct.
Mullen, James	Webbwood.	Mathewson, O. R.	Blind River.
Morley, A. W.	Winnipeg.	McCaw, Joseph E.	Tweed.
Macdonald, James M.	North Bay.	McLaren, Peter	Kenora.
Money, Harry	Haileybury.	McGregor, Colin F.	Kenora.
Mather, Allen	Keewatin.	McKenzie, Robt.	Kenora.
Menzies, Alexander	Sault Ste. Marie.	McFadyen, A. J.	Bracebridge.
Munro, Peter P.	Commanda.	McCaulay, Thos. J.	Goulais Bay.
Mason, Benjamin	Westmeath.	McDonald, John C.	Spanish Mills.
Monaghan, John B.	Arnprior.	McKenzie, Alex E.	Ansonia.
Monaghan, M. J.	Arnprior.	McIntyre, John	Arnprior.
Mulvihill, John	Arnprior.	McDermott, Thos.	Orillia.
Moran, Andrew	Rockingham, Qu.	McDermott, Jas. E.	North Bay.
Mulvihill, Michael	Arnprior.	McCindle, Jas.	Sudbury.
Mann, John	Manitowaning.	McGhie, Chas. S.	Whitestone.
Marrigan, Richard	Deseronto.	McGenigal, John H.	Whitby.
Monaghan, John Dorland.	Deseronto.	McCart, Patrick	Arnprior.
Matheson, Wm.	Chelmsford.	McGrath, Thos. B.	Peterborough.
Munro, Alex. G.	Braeside.	McCormick, James J.	Trenton.
Murphy, Oliver A.	Marksville.	McCarthy, Wm.	Fenelon Falls.
Mellor, Charles	Port Arthur.	McAvoy, Owen	Campbellford.
Millions, Harry	Gillies' Depot.	McConnell, Lewis	Fesserton.
MacDonell, R. D.	Biscotasing.	McMullen, George	Spragge.
Milne, Fred.	Trout Mills.	McNab, Angus	Burnstown.
Milne, William H., Jr.	North Bay.	McColgan, C. H.	Quyon, Que.
Murphy, Dennis	Thessalon.	McCallum, Webster	Arnprior.
Mackie, Thomas	North Lake.	McFarlane, Robert L.	Warren.
Miller, P. H.	Blind River.	McCagherty, Robert E.	Westmeath.
Munro, Philip	Braeside.	McNab, Archie	Calabogie.
Mangan, Patrick	Arnprior.	McDonald, Malcolm	Spragge.
Marcel, Peter	Ottawa.	McIvor, J. A.	Fort Frances.
Main, Samuel	Spanish Station.	McCulloch, M.	Kenora.
Morley, Charles	Huntsville.	McDonagh, Rod	Callender.
Moore, David Henry	Peterborough.	McManus, James	Arnprior.
Murphy, John	Arnprior.	McKinley, J. H.	Curran.
Mathieson, Daniel	Chelmsford.	McPherson, Jas. S.	Rama.
Milne, Wm.	Ethel.	McKinley, Edward C.	Toronto.
Mangan, Charles	Burk's Falls.	McClelland John	Parry Sound.
Mooney, Lincoln	Orillia.	McFarlane, J. W.	Cache Bay.
Mangan, John	Arnprior.	McDonald, Roderick	Pembroke.
Mooney, Thomas	Kingston.	McCormack, Wm.	Pembroke.
Mason, Robt. T.	Rochesterville.	McCreary, William	Arnprior.
Moore, Wm. John	Gravenhurst.	McCuaig, James C.	Bryson.

Appendix No. 12.—Continued.

LIST OF CULLERS.—Continued.

McColman, Peter	North Bay.	McLean, John	Blind River.
McLeod, James D.	Gravenhurst.	McLeod, Norman	Garden River.
McCrimmon, N. K.	Blind River.	McLean, James	Blind River.
McCreary, James, Jr.	Arnprior.	McNally, J. A.	Desbarats.
McPhee, Hugh	Byng Inlet.	McNab, Alexander	Arnprior.
McCudden James	Arnprior.	McFarlane, Alexander	Renfrew.
McLachlin, J. A.	Arnprior.	McFarlane, J. D.	Stewartsville.
Macpherson, John	Ottawa.	McFarlane, Duncan	Renfrew.
McEachren, John A.	Gravenhurst W	McKendry, Wm. B.	Arnprior.
McLeod, Dugald	Gravenhurst.	McPhee, Hugh	Renfrew.
McClelland, R. H.	Parry Sound.	McPhee, John	Arnprior.
McEvoy, Frank	Campbellford.	McLachlin, Peter	Arnprior.
McDermott, Peter	Orillia.	McLachlin, Alexander ...	Arnprior.
McIlroy, John	Madoc.	Mackey, Edward	Arnprior.
McNab, Robert J.	Parry Sound.	McEwan, Henry	Trenton.
McFadden, James	Ottawa.	McDonald, Alfred	Peterborough.
McIntosh, James G.	Carleton Place.	McGeary, John J.	Sundridge.
McInnis, Hector D.	Bracebridge.	McDonald, Archibald W. ...	Gilmour.
McKinnon, Malcolm	Bracebridge.	McGaw, John Gillen	Queensborough.
McLean, Daniel	Bracebridge.	McCauley, Barney	Trenton.
McKinnon, Archie J.	Bracebridge.	McDougall, James T.	Klock's Mills.
McKay, D. C.	Baysville.	McInenly, Thomas	Quebec, Que.
McDonald, James	Parry Sound.	McBride, Archibald	Arnprior.
McPherson, Allan	Longford.	McFarlane, Robert L.	Arnprior.
McDonald, James P.	French River.	McGowan, Wm.	Parry Sound.
McFarlane, Jos. C.	Port Severn.	McLachlin, Norman	Arnprior.
McNabb, Alexander	Thessalon.	McDonald, Laughlin	Pendleton.
McGillivray, Archibald ..	Port Arthur.	McIlvor, William J.	Collin's Inlet.
McGrane, Edward	Lindsay.	McKee, John P.	Sturgeon Falls.
McLeod, Donald, Jr.	Keewatin.	McGowan, Thomas	Parry Sound.
McDonald, Hector R.	Thessalon.	McDermot, Patrick	South River.
McDougall, Duncan	Bracebridge.	McKay, Angus	South River.
McNabb, Alexander D.	Warren.	McDonald, A. J.	Longford.
McCormack, John C.	Sudbury.	McInnis, Angus D.	Gravenhurst.
McNamara, John	Byng Inlet.	McKendry, Alexander ...	Waubashene.
McGillivray, Duncan D.	Algoma Mills.	McGuire, Timothy	North Bay.
McIntyre, Daniel A.	Klock's Mills.	McGrath, John	Peterborough.
McNamara, Lewis	Klock's Mill.	McWilliams, Jno. Bannon.	Peterborough.
McDonald, Sydney C.	Mattawa.	McCagherty, Patrick	Westmeath.
McGurn, John J.	Buckingham, Qu.	McKendry, Daniel	Arnprior.
McKeown, Jno. Joseph ...	Port Arthur.	MacDonald, D. F.	Parry Sound.
McNeel, David	Sault. Ste. Marie.	McManus, Thomas J.	Renfrew.
McEwan, Andrew	Thessalon.	Macfarlane, David R.	Ottawa.
McCool, Christopher L. ...	Cartier.	McColgan, Edward	Quyon, Que.
McCollom, Donald	Arnprior.	McKay, John	Emo.
McDowell, Wm.	Cache Bay.	McKinnon, William	Kenora.
McConnachie, Roy Stewart	Huntsville.	McKittrick, Frank R. F. ...	Kenora.
McDonnell, J. K.	Kenora.	McMichael, Charles	North Seguin.
McDonald, Alex. J.	Vermilion Bay.	McIlroy, Thomas David ...	Madoc.
McKay, D. A.	Rainy River.	McDonald, Wm. Henry ...	Trenton.
McMillan, James	Kenora.	McGaw, Wm. Thomas	Callender.
McPhee, Ronald	Bracebridge.	McMillan, L.	Callender.
McKay George Donner ..	Dorset.	McDermott, John L.	Orillia.
McWilliams, Maxwell		McDonald, Chas. M.	Pembroke.
Theodore	Peterborough.	McPhee, Benjamin	Pembroke.
McLeod, John	Keewatin.	McGee, John Edward	Parry Sound.
McPherson, George	Keewatin.	Macfarlane, Mack	Arnprior.
McDougall, John D.	Kenora.	MacCallum, Alexander	Braeside.
McGregor, Duncan	Burnstown.	McRae, Farquhar	Kenora.
McLean, Peter W.	Sand Point.	MacCallum, Albert	Arnprior.
McNichol, John	Sudbury.	McGonigal, John	Arnprior.
McInnis, D. E.	Cache Bay.	McConachie, John	Huntsville.
McLaughlin, Samuel	Waubashene.	McKay, D. G.	Kenora.
McCollam, John	North Bay.	McDonald, James	Peterborough.
McManus, John C.	Arnprior.	McCulloch, John L.	Lonsdale.

Appendix No. 12.—Continued.

LIST OF CULLERS.—Continued.

McConnell, James	Mine Centre.	O'Connor, John	Hintonburg.
McIntyre, William John ..	Port Arthur.	Oliver, Darcy	Wahnapiatae.
McDonald Allen	Big Forks.	O'Connor, Wm.	Nosbonsing.
McLay, Albert	Devlin.	O'Neil, James W.	North Bay.
McQuarrie, Daniel	Fort Frances.	O'Donnell, Wm.	Penetanguishene.
McNaughton, Daniel	Bracebridge.	Owens, Richard	Basin Depot.
McCagherty, William E. ...	Westmeath.	O'Reilly, Patrick	Cartier.
McDonald, John D.	Mattawa.	O'Neill, Mark	Renfrew.
McCagherty, Joseph T.	Westmeath.	Orrill, John	Trenton.
McAdam, Arch H.	Quyon, Que.	O'Neill, Patrick	Bancroft.
McMurphy, Dugald, Jr.	Kenora.	Orde, Francis W.	Kenora.
McCall, Alfred	Kenora.	O'Driscoll, Joseph	Sault Ste. Marie.
McRitchie, William	Kenora.	O'Gorman, Peter	Blind River.
McRitchie, Malcolm	Kenora.	Ogden, L. M.	Fort Frances.
McDonald, John Harold	Rydal Bank.	Pigott, John	Fitzroy Harbour.
McAuley, William Davis	Sault Ste. Marie.	Paul, Charles A.	Sault Ste. Marie.
McCallum, Thomas	Fort William.	Patinson, Thos.	Bracebridge.
McWhinney, Fred	Kenora.	Price, A. E.	Arnprior.
McNairney, Hugh H.	Sudbury.	Presley, J. F.	Ashton.
McKelvie, William	Otter Lake Sta.	Power, James	Bobcaygeon.
McGovern, Frank	Sault Ste. M.	Patzel, Adolph	Arnprior.
McCallum, Gordon	Fort Frances.	Plaunt, William B.	Eganville.
McCallum, Henry	Fort Frances.	Plaunt, Joseph	Eganville.
McLaughlin, Russell	Spanish Mills.	Porter, Charles C.	Longford.
McAdam, Miner S.	Quio, Que.	Preston, R. E.	Kenora.
McDougall, David A.	Nesterville.	Petrie, Geo. A.	Fergus.
McLeod, William A.	Manitowaning.	Pomeroy, Peter	Trenton.
McKee, D. A.	Wylie.	Perry, Pringle K.	Byng Inlet, N'th.
McKay, Norman	Fort Frances.	Purcall, W. G.	Ottawa.
McIntosh, Wm.	Biscotasing.	Purvis, John	Parry Sound.
McMahon, Edwin	Nesto P.O.	Porter, James	Uphill.
McGowan, Thos.	Parry Sound.	Pearson, John James	Lindsay.
McDonald, Norman	Keewatin.	Penney, Chas. G.	Catche Bay.
McLeod, John C.	Port Arthur.	Pennock, James P.	Hardwood Lake.
McIntosh, Herbert	Biscotasing.	Purdy, John A.	Uxbridge.
McDonald, Thos.	Kenora.	Playfair, R. J.	Blind River.
McCool, Daniel	Sudbury.	Paterson, John	Wahnapiatae.
Nescott, George	Kenora.	Paterson, Alexander	Orillia.
Newton, Frank	Gravenhurst.	Parke, James	Gravenhurst.
Newburn, Wm.	Parry Sound.	Parquette, Oliver	Webbwood.
Niblett, James	Arnprior.	Palmateer, Sherman	Gravenhurst.
Nisbett, Robert	Osceola.	Paget, George	Huntsville.
Nevison, Herbert	Kenora.	Pounder, Joseph	Westmeath.
Nicholson, John	Owen Sound.	Pell, Richard D.	Arnprior.
Newall, John H.	Parry Harbour.	Perry, Frederick	Port Arthur.
Nolan, John	Gravenhurst.	Paget, Charles Edward	Novar.
Newton, Charles W.	Victoria Harbour.	Porter, Thos. Robt. Mark	Dorset.
Nent, Charles	Vermillion Bay.	Pountney, E. J.	Arnprior.
Needham, John G.	Pakenham.	Pyburn, David J.	Dorset.
Netterfield, David	John's Island.	Purdy, Geo.	Hintonburg.
Nault, James	Fort Frances.	Playfair, Andrew Wm.	Sault Ste. Marie.
Norgate, Chas.	Dryden.	Pipe, Taylor	Haileybury.
Nash, John	Kenora.	Pipher, George E.	Mowat.
Nesbitt, Thos.	Kenora.	Pendee, David	Parry Sound.
Oullette, Joseph P.	Cutler.	Piper, A. J.	Blind River.
O'Neil, Thomas	Bancroft.	Paget, Alfred H.	Ahmie Harbour.
O'Neill, Daniel H. H.	Arnprior.	Powers, John J.	Trout Mills.
O'Leary, Patrick J.	Orillia.	Pigott, William D.	Fitzroy Harbour.
Oliver, Charles R.	Fesserton.	Potts, Cyril	North Lake.
Overend, George J.	Longford Mills.	Pilkey, William	La Vallee.
O'Brien, Andrew	Ottawa.	Pointer, Roy R.	Pembroke.
O'Brien, Frank G.	Arnprior.	Piper, Roy	Blind River.
Oliver, J. A.	Fort William.	Pehill, Walter	Dryden.
Owen, W. J.	Wabigoon.	Palmer, Fred	Blind River.

Appendix No. 12.—Continued.

LIST OF CULLERS.—Continued.

Quinn, William.....	Peterborough.	Rooksby, Wm.	Campbellford.
Quigley, Hugh.....	Penetang.	Ramesbottom, Robt.	Byng Inlet.
Quirk, Thomas J.....	Petawawa.	Roy, Lewis	Arnprior.
Quance, Louis F.....	Berriedale.	Riddell, Horace A.	Galetta.
Robertson, D.....	Kenora.	Rowan, A. L.	Sault Ste. Marie.
Richardson, Fred'k George	Trenton.	Ritchie, James A.	Spragge.
Richards, Richard	Tamworth.	Ross, George Joseph	Schrieber.
Riddell, Geo. Alexander ..	Rochesterville.	Rowe, Frank E.	Hymers.
Robertson, Lewis McLean.	Dunchurch.	Regmibal, J. Hector	Larchwood.
Robinson, Wm. F.	Bobcaygeon.	Reid, William T.	Fort Frances.
Reamsbottom, Wm.	Mattawa.	Ross, Sidney	Fort William.
Richey, Evan	Brentwood.	Robinson, Thos.	Kenora.
Randall, Lewis G.	French River.	Robertson, J. D.	Kenora.
Richardson, Chas. Marvyn	Trenton.	Richardson, C. R.	Fort Frances.
Rochester, Daniel Baillie..	Ottawa.	Richey, A. W.	Sudbury.
Riddell, James	Ottawa.	Robinson, W. J.	Dryden.
Rice, Asa S.	Hull, Que.	Smith, M. D.	Fort William.
Roberts, T. A.	Huntsville.	Scanlan, William	Enterprise.
Ross, Andrew	Longford Mills.	Sutherland, D. H.	Gravenhurst.
Rose, Donald M.	Kenora.	Spanner, John	Huntsville.
Rawson, Charles Edward.	Coldwater.	Shier, James D.	Bracebridge.
Ross, George	Waubauskene.	Spooner, W. R.	Katrine.
Roberts, Percy T.	Keewatin.	Simpson, Alfred E.	Wakefield.
Ritchie, Wm. D.	Little Current.	Souliere, John B.	Ottawa.
Ramsay, Robert	Arnprior.	Shields, James A.	Carleton Place.
Ritchie, J. F.	Arnprior.	Spargo, George	Ottawa.
Ritter, Samuel G.	Ahmie Harbour.	Smyth, W. H.	Baysville.
Rothera, Charles F.	Sturgeon Falls.	Salmon, R. H.	Byng-Inlet North.
Ryan, Alfred	Byng Inlet.	Salmon, Alexander C.	Baysville.
Rogers, Fred	Sault Ste. Marie.	Stremer, A.	Ottawa.
Reid, George William	Fort Frances.	Shields, Frank A.	Parry Sound.
Robertson, John A.	Kenora.	Stapleton, John J.	Ogidakie.
Robinson, Wm.	Bobcaygeon.	Sloan, William H.	Fort Frances.
Reid, Joseph B.	Lindsay.	Smyth, Job E.	Cache Bay.
Ross, Walter M.	Ottawa.	Sage, Nelson	Muskoka Mills.
Ruttle, H. A.	Carleton Place.	Seymour, Edward	Whitefish.
Richards, Benedict	Ottawa.	Shaw, Thomas B.	Waubauskene.
Regan, John	Orillia.	Swanston, James	Peterborough.
Russel, Wm.	Pembroke.	Simpson, William	Hall's Bridge.
Ramsay, Charles	Sudbury.	Sadler, Thomas	Lindsay.
Russell, Corsan L.	Pembroke.	Smith, Patrick Albert	Norman.
Richards, Henry	Dacre.	Snaith, William J.	Mattawa.
Ryan, Wm.	Killaloe.	Sinn, William F.	Arnprior.
Reid, John P.	Spanish Mills.	Sheppard, Wm. Joseph ..	Waubauskene.
Ridley, Robert	New Liskeard.	Spears, Milton B.	Barry's Bay.
Riley, Charles W.	Hutton House.	Stevenson, Arthur	Peterborough.
Raymond, Morris T.	Spanish Mills.	Stein, Paul	Sault Ste. Marie.
Rooney, Wm. H.	Campbellford.	Shaw, Alfred	Thessalon.
Revell, J. O.	Dryden.	Sequin, Napoleon	Spanish Station.
Rankin, Anthony	Cache Bay.	Scrim, Robert	Arnprior.
Ross, Angus	Orrville.	Sharp, James A.	Sudbury.
Robinson, Albert E.	Washago.	Shaney, Harry S.	Cook's Mills.
Robinson, Edward	Washago.	Smith, Wm.	Ottawa.
Robinson, Thomas G.	Washago.	Stewart, Daniel	Braeside.
Raycroft, William T.	Sarnia.	Sheehan, Michael H.	Waubauskene.
Roberts, Ivor M.	Garden River.	Smith, Sydney H.	Bracebridge.
Revell, Lionel Oliver	W. Gravenhurst.	Stewart, James A.	Pembroke.
Regan, Judd Patrick	Orillia.	Sproule, Newton H.	Schomberg.
Robins, Etna Rosedale ..	Orillia.	Simmons, Alex.	Port Arthur.
Regan, John Jr.	Orillia.	Scott, Thomas	Parry Sound.
Ryan, James	Savanne.	Smith, Lawrence	W. Saginaw, Mich.
Rusk, Oscar W.	Cache Bay.	Shea, Stewart	Campbellford.
Robinson, Thos. Geo.	Bracebridge.	Sullivan, John	Sault Ste. Marie.
		Sinclair, Finlay	Sudbury.

Appendix No. 12.—Continued.

LIST OF CULLERS.—Continued.

Shiels, Henry F.	Cartier.	Smith, L. G.	Worthington.
Smith, Gideon Ousley ...	Burk's Falls.	Skead, Eric S.	Spanish Mills.
Smith, John Wallis	Thedford.	Sullivan, Michael	Barry's Bay.
Smith, Henry G.	Arnprior.	Swale, William	Gillies Depot.
Story, John A.	Ottawa.	Schreiber, C. C.	Sudbury.
Sweezy, Benjamin	Massey.	Taylor, Fred. L.	Parry Sound.
Sheppard, Charles H.	Coldwater.	Thomas, Griff J.	Thessalon.
Seabrook, Alex.	Fabre P.O.	Thomson, R. D.	Biscotasing.
Spreadborough, Newlands.	Little Current.	Tait, Thomas B.	Burk's Falls.
Sheffield, George	Chapleau.	Taylor, C. M.	Gravenhurst.
Sanders, William J.	Sudbury.	Thornton, W. D.	Longford Mills.
Sinclair, Armon D.	Arnprior.	Trussler, Gilbert	Trout Creek.
Smith, Sidney E.	Ottawa.	Thompson, Geo. S.	Lindsay.
Sleeman, Wm.	Rapid River.	Thompson, Fred. A. H. ..	Nosbonsing.
Sheehan, Peter F.	Loring (canc'd).	Thompson, Francis Hy. ..	Nosbonsing.
Sleeman, Geo.	Rapid River.	Train, A. C.	Rowan Mills.
Sims, Wm. K.	Sault Ste. Marie.	Turgeon, Geo.	Cook's Mills.
Skahill, Wm.	Blind River.	Thayer, Wm.	Sault Ste. Marie.
Shaw, George	Thessalon.	Thompson, Alexander W. ..	Arnprior.
Sarsfield, George Francis.	Sault Ste. Marie.	Taylor, Thos. G.	Gravenhurst.
Standish, Wm. H.	Batchawanning.	Trowse, A.	Arnprior.
Simpson, Wm. A.	Lakefield. [Bay.	Tucker, Louis A.	Fort Francis.
Scollard, Wm.	Young's Point.	Thompson, Daniel	P't'te du F'rt, Q.
Shuttleworth, Alma	Trout Creek.	Thompson, Richard	Kenora.
Shanacy, Wm. J.	Spragge.	Thompson, Joseph H.	Bracebridge.
Seely, George	Arnprior.	Taylor, Edward A.	Westmeath.
Stewart, Alex. W.	Lanark.	Tait, Ralph	Arnprior.
Soreny, Wm.	Braeside.	Train, William	Burk's Falls.
Schneider, Frederick	Cache Bay.	Turner, Garvin F.	North Bay.
Smith, James D.	Kenora.	Tilson, Joseph	Burk's Falls.
Sullivan, James	Aylmer.	Tuffy, John	Cartier.
Scully, Cornelius	Whitney.	Thorpe, Thomas	Pembroke.
Savoy, Eutrope	North Bay.	Taylor, Charles E.	Gravenhurst.
Smith, Walter J.	Campbellford.	Tench, Arthur	Hekkla.
Seymour, John J.	Whitefish.	Tulloch, William A.	Sault Ste. Marie.
Smith, Alex. R. C.	Burk's Falls.	Taylor, Alex. M.	Burnstown.
Stewart, Richard M.	Chelsea, Que.	Toner, J. A.	P't'te du F'rt, Q.
Souliere, John H.	Canoe Lake.	Thrasher, Henry G.	Pembroke.
Smith, Abraim G.	Quyon, Que.	Tooke, Frank	Bala.
Swallow, C. H.	Day Mills.	Thorburn, Donald James ..	Thessalon.
Strave, A. M.	Mine Centre.	Tetreault, Philias	Tomiko.
Stewart, John	Fort Frances.	Tibbets, L. R.	Fort Frances.
Sullivan, George L.	Rainy River.	Tichborne, A. C.	Fort Frances.
Short, James	Kenora.	Thomson, Donald	Arnprior.
Shaw, Fred. Jason	Thessalon.	Udy, Dean	French River.
Short, Chas. J.	Kenora.	Urquhart, Elias	Gravenhurst.
Smith, David H.	Sudbury.	Urquhart, Andrew	Barrie.
St. Hillaire, George	Arnprior.	Vigrass, Percy J.	Dufferin Bridge.
Souliere, Joseph C.	Cutler.	Vincent, Joseph	Warren.
Scott, J. C.	Fort Frances.	Vollin, Samuel	Nosbonsing.
Stewart, Frank E.	Crozier.	Vannier, Nelson Joseph ...	Bobcaygeon.
Sanders, Edward	Barwick.	Vincent, James	Fesserton.
Spence, William	Arnprior.	Vincent, Henry T.	Port Sidney.
Scott, Allan A.	Norman.	Vanderburg, Norman	Wisawasa.
Souliere, Max	Spanish Mills.	Valois, Armand	Mattawa.
Stewart, David	Cache Bay.	Villiers, Claude	Parry Sound.
Shaw, Donald	Keewatin.	Vanier, John	Sault Ste. Marie.
Smyth, C. W.	Fort Frances.	White, Thomas S.	Bracebridge.
Stewart, Jas. Max	Winnipeg, Man.	White, A. Thomson	Pembroke.
Stewart, Russell C.	Winnipeg, Man.	Watt, R. A.	Spanish.
Slisson, Heber P.	Hymers.	Wilkins, Hughes	Blind River.
Schultz, Albert	Pembroke.	Wallace, T. William	Blind River.
Spavin, John	Westmeath.	White, Joseph W.	Bracebridge.
Spense, Dalton	Parry Sound.	Watson, William	Huntsville.
Sparling, S. W.	Richan.	Webb, George W.	Parry Sound.

Appendix No. 12.—Concluded.

LIST OF CULLERS.—Concluded.

Wilcox, Thomas	Parry Sound.	Warrell, George	Powassan.
Wheeler, J. A. McL.	Tamworth.	Wells, George W.	Little Current.
Widdifield, C. H.	Pine Orchard.	Wilson, Frederick Gould	Kenora.
Whitmore, Edgar	Rosseau Falls.	Wallace, John Thomas	Thessalon.
Wright, L. B.	Sault Ste. Marie.	Wilkins, George N.	Baysville.
Ward, Joseph W.	Ottawa.	Wylie, Byron M.	Webbwood.
Wilkinson, W.	French River.	White, Allan	Pembroke.
Waldie, John E.	Victoria Harbour.	Warner, Franklin H.	Fort Frances.
Wigg, Thomas G.	Thessalon.	Watts, George	Fort Frances.
Wall, Patrick B.	Cheboygan, Mich.	Wood, Thomas	Parry Sound.
Wells, John R.	Little Current.	White, William	Peterborough.
Whiteside, John	Huntsville.	Woods, A. L.	Kenora.
Watt, William	Peterborough.	White, John B.	Kippewa, Que.
Wilson, George	Lindsay.	Whelan, Peter M.	Renfrew.
White, Thomas	Parry Sound.	Wilson, David	Kearney.
Wood, William D.	Sault Ste. Marie.	Weston, Cecil	Dorset.
Watts, John J.	Fort Frances.	Wilkins, George E.	Dorset.
Webster, George F.	Fort Frances.	Woodcock, Edward	Brownhill.
Wright, Percy	Fort Frances.	Wilson, Fred.	Callender.
Watts, William B.	Fort Frances.	Wilson, Alexander R.	Thessalon.
Watson, William	North Bay.	Webster, Henry R.	North Lake.
Wagner, Fred.	Kenora.	Wallace, Fred. R.	Port Arthur.
Wainwright, Edward C.	Huntsville.	Wallace, Clayton	Blind River.
Wilson, Wm. James	Deseronto.	Wilson, Russell	Pembroke.
Weston, Frank R.	Midland.	Wheeler, George	Barwick.
White, James B.	Manitowaning.	Wall, G. L.	La Vallee.
Warren, Robert M.	Cache Bay.	Williams, Edward R.	Port Arthur.
Wilson, George A.	Balsam Hill.	Whalen, Jos.	Pembroke.
Welch, Harold	Milberta.	Younge, Harvey D.	Fort Frances.
Wilson, James A., Jr.	Webbwood.	Young, R. H.	Fort Frances.
Woods, John R.	Antrim.	Yuill, John Albert	Braeside.
Wardell, Ernest C. S.	Victoria Harbour.	Young, William	Seyvern Bridge.
Woods, Joseph F.	Roach's Point.	Young, A. J.	Cache Bay.
Whaley, Thomas	Huntsville.	Young, Samuel	Coldwater.
Webster, Wm. Alfred	Bracebridge.	Young, Patrick P.	Young's Point.
Wornsdorf, Fred. Gutlep.	Pembroke.	Young, Francis G.	Young's Point.
Warrell, Wm.	Trout Creek.	Yuill, Thomas	Arnprior.
Wims, Peter	Blessington.	Yuill, A. D.	Braeside.
Wickware, Philip Almont.	Cloyne.	Young, C. T.	Harvey.
Wilson, Edward	Deseronto.	Yuill, John Alex.	Arnprior.
Whelan, P. J.	McDougall.	Yuill, Archibald	Bracebridge.
Whyte, John, Thos. Goth.	Ottawa.	Yuill, William	Braeside.
Watterworth, J. A.	Sault Ste. Marie.	Young, Walter D.	Whitefish.
White, Wm. James	Muskoka Falls.		

Appendix No. 13.

LETTERS RECEIVED.

From Crown Land Agents	5,311
" Mining Recorders	2,949
" Crown Timber Agents	2,934
" Homestead Inspectors	1,062
" Fire Rangers	666
" Superintendent of Algonquin Park	346
" Superintendent of Quetico Park	130
Orders-in-Council	101
Telegrams	264
From all other sources	33,555
Total pieces incoming (Minister's office not included)	47,318

LETTERS SENT OUT.

Letters sent to Agents, Recorders, Inspectors, Rangers and Superintendents....	15,292
Letters to other sources	16,543
Circular letters (Timber Sales)	1,201
Maps and blue prints	2,511
Mining Reports to foreign countries	305
Mining Acts	1,215
Total pieces outgoing (Minister's office not included)	37,067
Postage for the year	\$2,951.46
New files made during the year	10,700
Account files made during the year (chargeable)	423
Account files made during the year (free)	266

S. K. BURDIN,
Chief Clerk.

ALBERT GRIGG,
Deputy Minister.

Appendix No. 14.

Statement showing the number of Locatees and of acres located; of purchasers and of acres sold; of lots resumed for non-performance of the settlement duties and of patents issued in Free Grant Townships during the year ending 31st October, 1916.

Township.	District or County.	Agent.	No. of persons located.	No. of acres located.	No. of purchasers.	No. of acres sold.	No. of lots resumed.	No. of patents issued.
Baxter	Muskoka.	J. B. Brown, Bracebridge..	1	25	1	25	...	3
Brunel	"	"	1	100	...	...	1	5
Cardwell .....	"	"	...	...	1	1	...	3
Chaffey	"	"	1	100	...	...	1	1
Draper .....	"	"	...	...	...	...	...	...
Franklin	"	"	2	281	1	50	2	2
Freeman .....	"	"	...	...	...	...	...	1
Macaulay	"	"	1	200	...	...	2	...
Medora .....	"	"	...	...	...	...	...	3
Monck .....	"	"	...	...	...	...	...	1
Morrison .....	"	"	...	...	...	...	...	...
Muskoka	"	"	1	200	...	...	2	1
McLean	"	"	1	102	1	1	1	3
Oakley	"	"	3	384	1	3	2	2
Ridout .....	"	"	...	...	...	...	...	...
Ryde	"	"	2	311	...	...	1	1
Sherborne....	Haliburton....	"	4	376	...	...	1	1
Sinclair.....	Muskoka.....	"	2	400	...	...	4	5
Stephenson...	"	"	1	100	...	...	1	2
Stisted	"	"	1	99	...	...	1	2
Watt .....	"	"	...	...	...	...	...	1
Wood	"	"	1	203	15	41 $\frac{3}{4}$	1	20
Burpee	Parry Sound..	Miss I. M. Campbell, Parry	5	701	...	...	2	2
Carling	"	" Sound	2	200	1	10	1	2
Christie.....	"	"	3	282	...	...	2	1
Conger .....	"	"	...	...	1	12	1	2
Cowper .....	"	"	...	...	1	12	...	6
Foley .....	"	"	...	...	...	...	...	...
Ferguson ..	"	"	1	194	...	...	...	1
Hagerman ..	"	"	...	...	...	...	...	1
Harrison	"	"	1	241	4	58	...	11
Henvey	"	"	3	345	...	...	...	...
Humphrey ..	"	"	...	...	...	...	...	...
McConkey....	"	"	1	200	...	...	1	1
McDougall ..	"	"	...	...	...	...	...	1
McKellar .....	"	"	...	...	...	...	...	1
McKenzie .....	"	"	...	...	...	...	...	2
Monteith	"	"	2	287	...	...	1	...
Shawanaga ..	"	"	...	...	...	...	1	3
Wilson	"	"	1	148	2	15	...	1
Chapman	Parry Sound .	Dr. J. S. Freeborn,	1	116	1	8	1	3
		Magnetawan						
Croft	"	"	2	300	1	5	2	3
Ferrie .....	"	"	...	...	...	...	...	...
Gurd	"	"	4	467	...	...	2	2
Lount.....	"	"	4	485	...	...	2	1
Machar	"	"	8	1,192	3	104	8	5
Mills .....	"	"	...	...	2	200	...	1
Pringle	"	"	2	348	1	21	2	...

Appendix No. 14.—Continued.

Township.	District or County.	Agent.	No. of persons located.	No. of acres located.	No. of purchasers.	No. of acres sold.	No. of lots resumed.	No. of patents issued.
Ryerson.....	Parry Sound..	Dr. J. S. Freeborn, Magnet- awan.	...	...	...	...	...	3
Spence.....	"	" " "	1	201	2	47	...	1
Strong.....	"	" " "	...	...	...	...	...	...
Armour.....	Parry Sound..	W. Jenkin, Emsdale.	...	...	...	...	...	...
Bethune.....	"	" " "	1	76	...	...	1	1
Joly.....	"	" " "	1	100	...	...	...	3
McMurrich..	"	" " "	1	36	...	...	1	...
Perry.....	"	" " "	...	...	...	...	...	1
Proudfoot....	"	" " "	...	...	...	...	...	...
Hardy.....	Parry Sound..	H. J. Ellis, Powassan..	...	...	...	...	...	1
Himsworth..	"	" " "	4	820	2	71	3	10
Laurier.....	"	" " "	1	200	...	...	...	1
Nipissing....	"	" " "	3	400	1	100	...	4
Patterson....	"	" " "	1	100	...	...	...	...
Bonfield....	Nipissing....	W. J. Parsons, North Bay...	6	553	...	...	3	3
Boulter.....	"	" " "	2	204	2	14	...	3
Chisholm....	"	" " "	5	667	...	...	3	8
Ferris.....	"	" " "	10	1,092	1	100	8	15
Anson.....	Haliburton...	R. H. Baker, Minden.....	1	103	1	3	...	2
Glamorgan..	"	" " "	5	798	1	2	5	1
Hindon.....	"	" " "	...	...	...	...	...	...
Lutterworth..	"	" " "	2	185	1	29	2	2
Minden.....	"	" " "	1	100	...	...	...	1
Snowdon.....	"	" " "	2	300	...	...	2	...
Stanhope....	"	" " "	2	310	...	...	2	1
Anstruther...	Peterborough.	William Hales, Apsley.....	...	...	...	...	...	1
Burleigh, N.D.	"	" " "	...	...	...	...	...	...
" S.D.	"	" " "	...	...	1	215	1	1
Chandos.....	"	" " "	...	...	...	...	...	...
Methuen.....	"	" " "	1	150	...	...	...	...
Cardiff.....	Haliburton...	A. N. Wilson, Kinmount.....	7	874	...	...	6	6
Cavendish....	Peterborough.	" " "	4	703	5	58	2	...
Galway.....	"	" " "	4	400	1	2	5	6
Monmouth...	Haliburton...	" " "	4	435	...	...	8	2
Bangor.....	Hastings.....	W. J. Douglas, Greenview...	...	...	...	...	...	...
Carlow.....	"	" " "	...	...	...	...	...	1
Cashel.....	"	" " "	1	100	...	...	...	...
Dungannon..	"	" " "	...	...	1	2	...	2
Faraday.....	"	" " "	4	447	...	...	2	3
Herschel....	"	" " "	13	1,660	2	13	3	1
Limerick....	"	" " "	3	212	...	...	1	...
Mayo.....	"	" " "	5	590	...	...	2	...
Monteagle...	"	" " "	4	398	...	...	1	4
McClure.....	"	" " "	1	101	2	122	...	1
Wicklow.....	"	" " "	...	...	1	1	...	...
Wollaston....	"	" " "	...	...	...	...	...	1
Algona, S....	Renfrew.....	Adam Prince, Wilno.....	2	111	...	...	...	...
Brougham...	"	" " "	3	403	1	15	5	1
Brudenell...	"	" " "	2	318	...	...	2	1
Burns.....	"	" " "	...	...	...	...	...	1

Appendix No. 14.—Continued.

Township.	District or County.	Agent.	No. of persons located.	No. of acres located.	No. of purchasers	No. of acres sold.	No. of lots resumed.	No. of patents issued.
Grattan	Renfrew	Adam Prince, Wilno.....	1	104	..	..	..	5
Griffith .....	"	"	..	..	1	100	..	3
Hagarty .....	"	"	..	..	..	..	..	2
Jones	"	"	3	475	..	..	..	..
Lyell	Nipissing	"	3	410	..	..	..	1
Lyndoch	Renfrew	"	2	236	1	52½	2	5
Matawatchan.	"	"	1	100	..	..	..	..
Radcliffe	"	"	2	318	..	..	2	1
Raglan	"	"	3	254	..	..	..	12
Richards	"	"	2	398	1	19	1	5
Sebastopol ..	"	"	..	..	..	..	..	3
Sherwood	"	"	4	249	2	84	..	2
Algona, N....	Renfrew	Finlay Watt, Pembroke....	1	101	..	..	..	1
Alice .....	"	"	..	..	..	..	..	2
Buchanan	"	"	1	100	..	..	..	..
Fraser .....	"	"	..	..	..	..	..	1
Head .....	"	"	..	..	..	..	..	..
Maria .....	"	"	..	..	..	..	..	..
McKay .....	"	"	..	..	..	..	..	..
Petawawa ....	"	"	..	..	..	..	..	..
Rolph	"	"	1	100	..	..	1	1
Wilberforce ..	"	"	..	..	..	..	..	..
Wylie (pt)....	"	"	..	..	..	..	..	2
Calvin	Nipissing	Robert Small, Mattawan ...	3	294	..	..	3	1
Cameron (pt).	"	"	4	656	..	..	..	1
Lauder	"	"	1	100	1	14	..	..
Mattawan.....	"	"	..	..	1	80	..	..
Papineau	"	"	7	700	..	..	1	4
Korah	Algoma	Edw'd Noble, Sault Ste. Marie	..	..	..	..	..	..
Parke.....	"	"	..	..	..	..	..	..
Prince	"	"	1	80	..	..	1	3
Aberdeen	Algoma	Thos. Dodds, Thessalon.....	3	416	..	..	2	..
" add.	"	"	..	..	..	..	..	..
Galbraith .....	"	"	..	..	..	..	..	..
Lefroy .....	"	"	..	..	..	..	..	..
Plummer .....	"	"	..	..	..	..	..	..
" add.	"	"	..	..	..	..	..	..
St. Joseph Is'd	Algoma	W. E. Whybourne, Marksville	4	594	..	..	5	5
" " Ch'n l "	..	..	..	..	..	..	..	1
Baldwin.....	Algoma	Edward Arthurs, Espanola .	3	480½	2	2	4	3
Merritt.....	"	"	..	..	..	..	..	1
Blake.....	Thunder Bay.	W. A. Burrows, Port Arthur	3	360	..	..	2	5
Conmee	"	"	6	795	2	13½	3	9
Crooks	"	"	1	160	..	..	1	4
Dawson Road.	"	"	8	848	3	86	8	2
Dorion	"	"	2	261¾	1	138	2	3
Gillies	"	"	1	157½	1	161½	1	3
Gorham.....	"	"	13	1,784	2	78½	10	13
Lybster	"	"	2	322½	..	..	..	1
Marks.....	"	"	2	316	..	..	3	2
McGregor	"	"	4	639	..	..	5	4
McIntyre .....	"	"	..	..	..	..	..	3
O'Connor.....	"	"	1	162	..	..	1	8

Appendix No. 14.—Continued.

Township.	District or County.	Agent.	No. of persons located.	No. of acres located.	No. of purchasers.	No. of acres sold.	No. of lots resumed.	No. of patents issued.
Oliver.....	Thunder Bay.	W. A. Burrows, Port Arthur	4	636 $\frac{1}{2}$	2	9 $\frac{1}{2}$	3	3
Paipoonge, N R	"	"	"	"	"	"	"	2
" S R	"	"	"	"	"	"	"	1
Pardee.....	"	"	4	640	"	"	1	"
Pearson.....	"	"	9	1,496	1	80 $\frac{1}{2}$	8	4
Scoble.....	"	"	2	319	"	"	2	1
Stirling.....	"	"	9	1,435	2	114 $\frac{1}{2}$	11	"
Strange.....	"	"	1	159	1	2	1	4
Ware.....	"	"	8	1,280 $\frac{1}{2}$	2	100	9	17
Atwood.....	Rainy River.	William Cameron, Stratton..	"	"	"	"	"	"
Blue.....	"	"	9	1,301	2	84	6	2
Curran.....	"	"	"	"	"	"	1	1
Dewart.....	"	"	6	806	1	2	5	1
Dilke.....	"	"	"	"	"	"	"	2
Morley.....	"	"	2	242	2	3	2	3
Morson.....	"	"	10	1,444	3	164	12	7
McCrosson...	"	"	3	360 $\frac{1}{2}$	1	30	"	"
Nelles.....	"	"	1	164	"	"	1	"
Pattullo....	"	"	4	548	3	6	3	4
Pratt.....	"	"	3	462 $\frac{1}{2}$	"	"	2	2
Rosebery.....	"	"	"	"	"	"	"	"
Shenston.....	"	"	"	"	"	"	"	1
Sifton.....	"	"	6	208 $\frac{1}{2}$	"	"	6	5
Spohn.....	"	"	12	1,756 $\frac{1}{2}$	"	"	6	"
Sutherland...	"	"	14	1,966	"	"	9	1
Tait.....	"	"	12	1,569	3	10	12	5
Tovell.....	"	"	10	1,457 $\frac{1}{2}$	1	2 $\frac{1}{2}$	7	2
Worthington..	"	"	"	"	"	"	"	3
Aylsworth...	Rainy River.	Alex. McFayden, Emo.....	"	"	"	"	"	"
Barwick.....	"	"	"	"	"	"	"	"
Burriss.....	"	"	1	200 $\frac{1}{2}$	4	37 $\frac{1}{2}$	1	6
Carpenter....	"	"	2	345	"	"	1	6
Crozier.....	"	"	1	122	2	43	1	4
Dance.....	"	"	9	1,461	3	24 $\frac{1}{2}$	8	7
Devlin.....	"	"	"	"	1	2	"	4
Dobie.....	"	"	"	"	3	14 $\frac{1}{2}$	"	6
Fleming.....	"	"	"	"	"	"	"	"
Kingsford....	"	"	5	802	"	"	5	1
Lash.....	"	"	"	"	2	8	"	2
Mather.....	"	"	3	491 $\frac{1}{2}$	1	18	3	6
Miscampbell..	"	"	4	685	"	"	4	6
Potts.....	"	"	3	485 $\frac{1}{2}$	1	2	3	2
Richardson...	"	"	11	1,724 $\frac{1}{2}$	"	"	7	2
Roddick.....	"	"	"	"	"	"	"	"
Woodyatt.....	"	"	"	"	"	"	"	"
Aubrey.....	Kenora.....	J. E. Gibson, Dryden.....	5	478 $\frac{1}{2}$	"	"	5	1
Britton.....	"	"	2	322	1	2	2	"
Eton.....	"	"	2	319 $\frac{1}{2}$	"	"	2	2
Langton.....	"	"	5	662 $\frac{1}{2}$	"	"	2	"
Melgund.....	"	"	"	"	"	"	"	1
Mutrie.....	"	"	2	328	1	135	2	1
Redvers.....	"	"	26	3,662 $\frac{1}{2}$	3	151	2	"
Rowell.....	"	"	1	119	"	"	"	1
Rugby.....	"	"	1	160	2	77	2	1
Sanford.....	"	"	2	158	3	279 $\frac{1}{2}$	4	4
Southworth..	"	"	1	151 $\frac{1}{2}$	1	2	2	"
Temple.....	"	"	2	320	"	"	1	2

Appendix No. 14.—Concluded.

Township.	District or County.	Agent.	No. of persons located.	No of acres located.	No. of purchasers.	No. of acres sold.	No. of lots resumed.	No. of patents issued.
Van Horne ...	Kenora	J. E. Gibson, Dryden...	2	160	2	677	1	5
Wabigoon ...	"	"	5	760 $\frac{1}{2}$	2	145 $\frac{1}{2}$	8	4
Wainwright ..	"	"	5	822	1	79 $\frac{3}{4}$	1	3
Zealand	"	"	14	2,224	2	65 $\frac{1}{2}$	15	4
Melick	Kenora	W. L. Spry, Kenora	6	793 $\frac{1}{2}$	1	25	14	2
Pellatt	"	"	2	250	.....	.....	6	3
Balfour	Sudbury	J. K. MacLennan, Sudbury ..	2	265	.....	.....	1	3
Blezard .....	"	"	.....	.....	.....	.....	.....	2
Broder	"	"	3	443 $\frac{1}{2}$	1	19	.....	8
Capreol	"	"	1	81 $\frac{3}{4}$	.....	.....	2	5
Chapleau	"	"	2	276	1	78	.....	2
Dill	"	"	9	1,460 $\frac{1}{2}$	.....	.....	3	2
Garson	"	"	7	966 $\frac{1}{2}$	.....	.....	4	3
Hanmer	"	"	6	1,026 $\frac{1}{2}$	1	2	6	2
Lumsden	"	"	3	479	1	321	.....	1
Morgan	"	"	3	471	.....	.....	3	1
Neelon	"	"	2	327 $\frac{1}{2}$	2	99	.....	8
Rayside	"	"	1	101	.....	.....	.....	5
Appelby	Sudbury	John Brown, Markstay	5	803	2	10 $\frac{1}{2}$	1	4
Casimir	"	"	4	587 $\frac{1}{2}$	.....	.....	1	1
Dunnet	"	"	4	620 $\frac{1}{2}$	2	6	.....	4
Hagar	"	"	7	1,118 $\frac{1}{2}$	.....	.....	3	3
Jennings	"	"	3	479	.....	.....	.....	.....
Kirkpatrick ..	Nipissing ...	"	1	160	1	5 $\frac{1}{2}$	.....	2
Ratter	Sudbury	"	6	958	.....	.....	3	2
Caldwell	Nipissing ...	J. A. Philion, Sturgeon Falls.	2	240	.....	.....	2	3
Cosby	Sudbury	"	6	875 $\frac{1}{2}$	1	2 $\frac{1}{2}$	2	5
Grant	Nipissing ...	"	3	401	.....	.....	1	1
Macpherson ..	"	"	4	570	.....	.....	.....	6
Maitland	Sudbury	"	4	367 $\frac{1}{4}$	.....	.....	.....	3
Springer	Nipissing ...	"	1	110	.....	.....	.....	4
Abinger	Lennox and Addington	Charles Both, Denbigh	1	119	.....	.....	.....	.....
Canonto, S. ...	Frontenac....	"	.....	.....	.....	.....	.....	.....
" N. ....	"	"	.....	.....	.....	.....	.....	.....
Clarendon .....	"	"	.....	.....	.....	.....	.....	.....
Denbigh	Lennox and Addington	"	.....	.....	.....	.....	.....	.....
Miller (pt.) ...	Frontenac....	"	5	598	.....	.....	2	1
Palmerston ..	"	"	1	100	.....	.....	.....	.....
.....	"	"	1	100	.....	.....	.....	.....
McClintock ...	Haliburton....	Unattached .....	.....	.....	1	36	.....	1
Airy	Nipissing	"	4	613 $\frac{1}{2}$	1	1	1	2
Finlayson .....	"	"	.....	.....	1	25	.....	1
Murchison .....	"	"	.....	.....	.....	.....	.....	.....
Sabine	"	"	6	655	.....	.....	1	1
			620	85,139	155	5,191 $\frac{1}{2}$	417	489
			No. of lots assigned		No. of acres assigned			
			232		30,694 $\frac{1}{2}$			

Appendix No. 15.

Statement of Crown Surveys completed and closed during the twelve months ending October 31st, 1916.

No.	Date of Instructions.	Name of Surveyor.	Description of Survey.	Amount paid.	No. of Acres.
1	Sept. 15, 1915.	E. R. Bingham ..	Subdivision of Township of Owens, District of Temiskaming	\$ c 3,876 20	51,934
2	Oct. 15, 1915.	R. S. Code	Survey of a tie line in the vicinity of Kowkash, District of Thunder Bay	636 86	
3	July 9, 1915	T. G. Code	Subdivision of Township of Cody, District of Temiskaming	713 20	11,799
4	Oct. 23, 1915.	J. W. Fitzgerald.	Subdivision of parts of Townships of Hall, Joffre, Carew and Cavell, in the District of Sudbury	2,017 75	15,344
5	Aug. 10, 1915.	Phillips & Benner	Subdivision of the Township of Forbes, District of Thunder Bay.	3,100 10	33,357
6	June 24, 1915.	A. L. Russell	Survey of additional lands to the Townships of Ware and Gorham, in the District of Thunder Bay..	1,344 79	6,451
7	July 27, 1915.	E. Seager	Subdivision of Township of Colenso, in the District of Kenora.	1,763 30	23,035
8	Mch. 21, 1916.	M. E. Crouch	Subdivision of the Township of Nepigon additional, District of Thunder Bay	3,274 20	20,094
9	Jan. 6, 1916.	Speight & Van Nostrand	Survey of Lady Evelyn Lake, District of Temiskaming	3,301 63	.....
10	May 31, 1916	McAuslan & Anderson	Subdivision of the Town Plots of Grant and Armstrong, District of Thunder Bay.	1,051 68	.....
11	Jan. 21, 1916.	McAuslan & Anderson	Survey of Peter Long Lake, in the District of Temiskaming and Sudbury	3,228 98	.....
12	July 4, 1916.	M. E. Crouch ...	Subdivision of the Township of Hele, District of Thunder Bay ..	4,499 70	30,452
13	Mch. 5, 1913.	E. Seager	Survey of Timber Berths K 23 and K 23a, District of Kenora	157 94	.....
14	Apr. 20, 1916.	A. S. Code	Survey of part of Peninsula No. 2, Lake Shore Road West con., Township of Bosanquet	90 00	.....
			A. J. Milden—Services on survey of Interprovincial Boundary at Lake St. Francis	28 00	.....
				29,084 33	192,466

L. V. RORKE,
Acting Director of Surveys.

ALBERT GRIGG,
Deputy Minister of Lands and Forests.

Appendix No. 16.

Statement of Crown Surveys in progress during the twelve months ending October 31st, 1916.

No.	Date of Instructions.	Name of Surveyor.	Description of Survey.	Amount Paid.
				\$ c.
1	Apr. 15, 1915	J. S. Dobie	Survey of islands north and west of Manitoulin Island, Districts of Algoma and Manitoulin	5,000 00
2	Apr. 20, 1915	Lang & Ross	Survey of islands on the North Shore of Lake Huron and Georgian Bay, Districts of Manitoulin, Sudbury and Parry Sound.	9,500 00
3	Apr. 16, 1915	T. J. Patten	Survey of islands in Lake Huron, east and north-east of Manitoulin Island, District of Manitoulin	5,800 00
4	May 26, 1916	Phillips & Benner	Survey of Nepigon Forest Reserve in the District of Thunder Bay	4,500 00
5	June 13, 1916	David Beatty ...	Survey of the Township of Foleyet, in the District of Sudbury	3,000 00
6	June 30, 1916	R. S. Code	Survey of Township of Muskego, in the District of Sudbury	3,800 00
7	Sept. 5, 1916	J. W. Fitzgerald.	Survey of Township Outlines, District of Algoma	3,000 00
8	Sept. 21, 1916	McAuslan & Anderson	Survey of Town Plot of Bear Island in the District of Nipissing	200 00
9	July 31, 1916	R. S. Code	Survey of part of the Township of Keith, District of Sudbury	
10	Oct. 18, 1916	McAuslan & Anderson	Survey of line between Townships of Gooderham and Kenny, District of Nipissing	
11	Oct. 23, 1916	Sutcliffe & Neelands	Survey of lines in Townships of Ogden, Bristol and Thornloe, District of Temiskaming	
				34,800 00

L. V. RORKE,
Acting Director of Surveys.

ALBERT GRIGG,
Deputy Minister of Lands and Forests.

Appendix No. 17.

Statement of Municipal Surveys for which instructions issued during the 12 months ending October 31st, 1916.

No.	Name of Surveyor.	No.	Date of Instructions.	Description of Survey.
1	Speight & Van Nosstrand.....	705	Dec. 9th, 1915..	To survey Lots "J," "K" and "L," as shown on plan of subdivision of part of Lot 19, Concession 2 from the bay in the Township of York, and to plant stone or other durable monuments at the northerly angles of the said lots.
2	McKay, McKay & Webster...	706	Jan. 13th, 1916.	To survey the boundaries of Allan Street in the Town of Oakville and to plant durable monuments defining the limits of the said street in the said Town of Oakville.
3	Herbert J. Beatty.....	707	Aug. 28th, 1916.	To survey and plant stone or other durable monuments to mark the northeasterly boundary of Lots 9, 10 and 11, in the 2nd Concession of the Township of Horton (now within the limits of the Town of Renfrew), in the County of Renfrew, and also to mark the road allowance between the east halves of said Lots 10 and 11 in the said concession.

L. V. RORKE,
Acting Director of Surveys.

ALBERT GRIGG,
Deputy Minister of Lands and Forests.

Appendix No. 18.

Statement of Municipal Surveys confirmed during the 12 months ending
October 31st, 1916.

No.	Name of Surveyor.	No.	Date of Instructions.	Description of Survey.	Date when confirmed under R.S.O. 1914, Chap. 166, Secs. 10-15 inclusive.
1	Wilbert S. Gibson.	688	Mar. 19, 1913...	To survey the allowance for road between the 1st and 2nd ranges, Credit Indian Reserve, south of Dundas Street, Tp. of Toronto, from the northwest angle of Lot No. 8, 1st range, across Lots Nos. 9, 10, 11, 12, 13 and 14 in the 1st range, and Lots Nos. 6, 9 and 10 in the 2nd range, Credit Indian Reserve, and thence along the road allowance between the 2nd range, Credit Indian Reserve, and the 2nd Concession of Toronto Township south of Dundas Street, being across part of Lot 22, Lot 23, Lot 24 and Lot 25 in the 2nd Concession south of Dundas Street, to the westerly limit of said Lot 25, being the easterly limit of the allowance for road between Lots Nos. 25 and 26, known as the "Lorne Park Road," and as regards the 2nd range on the northerly side of said road allowance, being across parts of Lot No. 10, Lots 11 and 12, and part of Lot 13, in the 2nd range, Credit Indian Reserve, and to define said allowance for road by permanent stone or iron monuments planted on each side thereof.	Nov. 16th, 1915.
2	E. R. Bingham....	695	Nov. 26th, 1914.	To survey a portion of the City of Port Arthur in the District of Thunder Bay, between John Street and McVicar and River Streets and between Algoma and High Streets, being the balance of what was known as the old town plot of Prince Arthur's Landing, and to have the corners of all the streets marked by iron bars, duly planted thereat.	Apr. 13th, 1916.
3	Jas. J. MacKay...	699	June 21st, 1915	To survey the limits of Mountain Park Avenue in the City of Hamilton, from the west side of Wentworth Street to Lakeview Avenue, and of Wentworth Street from the allowance for road between the 3rd and 4th Concessions of the Township of Barton and the brow of the mountain	Dec. 23rd, 1915.

Appendix No. 18.—Concluded.

Statement of Municipal Surveys confirmed during the 12 months ending October 31st, 1915.

No.	Name of Surveyor.	No.	Date of Instructions.	Description of Surveys.	
	Jas. J. MacKay (Continued.)	....	.....	now in the City of Hamilton, and to plant durable monuments showing the northerly and southerly boundaries of Mountain Park Avenue, between Wentworth Street and Lakeview Avenue, and the easterly and westerly boundaries of Wentworth Street between the allowance for road between the 3rd and 4th Concessions of the Township of Barton and the brow of the mountain.	
4	S. B. Code.....	701	July 2nd, 1915..	To survey the 6th Concession line from Lot No. 25 at the side road to Lot No. 18 in the Township of Goulburn, and to have durable monuments planted at the corners of the above lots.	Nov. 26th, 1915.
5	J. L. Morris.....	702	Sept. 2nd, 1915..	To survey the Concession Line between Concessions 8 and 9, opposite Lots Nos. 1, 2 and 3. in the Township of Westmeath, in the County of Renfrew, or as much farther as may be necessary on either side, and to mark the same by permanent stone or other durable material.	Dec. 20th, 1915.
6	F. M. Eagleson....	703	Oct. 15th, 1915..	To survey part of the Concession Road Allowance between the 6th and 7th Concessions of the Township of Kenyon, from the east side of Lot No. 7 to the west side of Lot No. 12, and also of the road allowance between Lots Nos. 6 and 7 in the 6th Concession, and to plant durable monuments to define said road allowance opposite the above lots.	May 22nd, 1916.
7	Speight & Van Nos- trand.....	705	Dec. 9th, 1915..	To survey Lots "J," "K" and "L," as shown on plan of subdivision of part of Lot 19, Concession 2 from the bay in the Township of York, and to plant stone or other durable monuments at the northerly angles of the said lots, the copy of the plan sent to this Department being part of Registered Plan No. 528, Township of York, shows you the lots J. K and L, on Binscarth Road.	May 16th, 1916.

Appendix No. 19.

SURVEY OF THE TOWNSHIP OF FORBES, IN THE DISTRICT OF THUNDER BAY.

PORT ARTHUR, ONTARIO, Dec. 27, 1915.

SIR,—We beg to report that in accordance with your instructions dated August 10th, 1915, we have completed the survey of the township of Forbes, which is situate north of the Dawson Road lots, west of Dog river and south of Grand Trunk Pacific Block No. 1.

This township is about thirty miles north-west of the city of Port Arthur. Kaministiquia, on the Canadian Pacific Railway, and Dana on the Grand Trunk Pacific Railway are about a mile south of the south-east corner and from these stations a well graded road runs along the east bank of the river to a point opposite concession 1 in Forbes township, this with the Dog river on the east boundary form a good entrance to the east part of the township. On the west side of the river there is a wagon road starting below Paddy's rapids and coming back to the river above the Crooked rapids. The westerly portion of the township is reached most conveniently by the Grand Trunk Pacific Railway, Flett station on this road being in lot I, concession IV, also from this point a wagon road runs south to the Canadian Pacific Railway.

The survey was commenced at the six-mile post on the south boundary of Grand Trunk Pacific Block No. 1, which point was marked by an iron post and a pine post planted by O.L.S. Fawcett in 1907. From this point the west boundary of the township was run south astronomically to intersect the north boundary of the Dawson road lots. The north boundary of the Dawson road lots, being the south boundary of the township, was established by joining in a straight line from point to point, the points established by O.L.S. Bolton between lots 37 and 38, 32 and 33, 27 and 28, 22 and 23, 17 and 18, 12 and 13, and 7 and 8, concession 11, on their north boundaries. To perform this operation it was found necessary to run a trial line from each point to the next, the true line connecting the points being then run and blazed. From the posts at lots 4 and 5 on said north boundary of the Dawson road lots a line was run on a course north eighty-five degrees and twenty-three minutes east to intersect the Dog river, and this line was produced westerly to intersect the production easterly of the line as established across Dawson road lots 8 to 12.

From the points on the north boundary of the township where O.L.S. Fawcett planted his 5, 4, 3, 2, 1 and initial mile posts, lines were run south astronomically to intersect the south boundary, these lines being between lots 2 and 3, 4 and 5, 6 and 7, 8 and 9, 10 and 11, and 12 and 13, respectively. From O.L.S. Fawcett's initial mile post a line was run east astronomically to intersect the Dog river, completing the north boundary, and from a point one mile east of said initial point a line was run south astronomically to intersect the Dog river, this being the line between lots 14 and 15.

At points on the west boundary one and two miles south of the starting point lines were run east astronomically to intersect the Dog river, establishing concessions VII and VIII.

From the south-east corner of lot 8, concession VII, as established, one, two, and three miles were measured south and lines run west astronomically from each of these points to intersect the west boundary and east astronomically to intersect

Dog river, establishing concessions VI, V and IV. From the south-east corner of lot 4, concession IV as established, one mile was measured south and a line run east astronomically from this point to intersect the Dog river, establishing concession III. From the south-east corner of lot 10, concession III, one mile was measured south and a line run east astronomically from this point to intersect the Dog river, establishing concessions I and II; from the point where this line intersects the line between lots 12 and 13, one mile was measured east and a line run south from this point to intersect the south boundary, and north astronomically across concession II and produced to the Dog river.

Throughout the township all the odd numbered lots were made forty chains in width, the posts on the south boundary being planted at such distances as were required to give these lots a perpendicular width of forty chains. Iron posts were planted as shown on the projected plan.

The magnetic variation remained fairly constant at two degrees and fifteen minutes east, and no greater variation than four degrees was observed at any time.

TIMBER.

Most of the timber of economic value has been destroyed by forest fires which swept the country at various dates. The south-west part of the township and parts of the south-east portion have been burned clean so that there are now but a few scattered trees and a heavy growth of underbrush with an occasional patch of the original timber. Another fire of more recent date has destroyed the timber in the central part of the north half of the township. In the north-east corner of the township there is a considerable stand of the original growth, the merchantable pieces being spruce and banksian pine. This area extends from the north boundary to about the centre of concession VI, and extends from three-quarters of a mile to a mile from the Dog river. There are other patches of large timber further south along the river, but the largest timber in these has been cut some years ago. The remainder is timbered with poplar, banksian pine and spruce, principally, with some patches of birch and tamarac. The banksian pine in the westerly half is larger and more scattered than that on the easterly half which would average from six to eight inches.

TOPOGRAPHY.

The land in the western part of the township is of a rolling nature with occasional hills; that in the eastern half is more broken and in some places is badly cut up by ravines, which are, however, pretty well confined to the northerly part of the east part of the township. Along the Dog river through the three southerly concessions there is a considerable area of level land, but the remainder of the land adjacent to the river is for the most part rocky and broken.

SOIL.

The soil over the entire township is red clay and clay loam containing varying quantities of sand. There are rock outcrops of some extent and some of the soil is rocky, but from seventy-five to eighty per cent. of the area of the township should be well adapted to agricultural purposes.

MINERALS.

There are occasional outcrops of rock scattered over the township, but no mineral matter of economic value was seen, the formation being mostly red and gray granite or trap with quartz stringers showing in places.

WATER COURSES.

The western half of the township is drained by the Sunshine creek and its tributaries flowing into the Matawin river. In the easterly part the country is more broken and the land is drained by several small streams which flow directly in to the Dog river. No lakes were seen in the interior of the township.

ISLANDS.

In the Dog river in its course along the township there are eight islands, these have been lettered "A" to "H" in the traverse notes; none of these islands are of any value or use. "A" is in the eddy below the Crooked rapids and is small and rocky and difficult to land upon; "B" is in the rapids and inaccessible; "C" is at the head of the rapids and difficult to land upon; "D" is near the foot of the fifteen foot fall into Little Dog lake, and has rapids on two sides of it making it difficult of access; "E" and "F" are in the one hundred and fifty foot fall above Little Dog lake, are small and rocky and inaccessible; "G" is also in this fall but it is possible to land on it; "H" is in the same fall and is inaccessible from either side of the river.

FALLS AND RAPIDS.

There are six rapids or series of rapids in the Dog river from the south to the north boundary of the township. The first, known as the Twin rapids, is opposite concession III and has a drop of three feet. The second, known as Paddy's or the Flat rapids opposite lot 15, concession IV, has a fall of one foot. The third is opposite lot 16, concession IV, is known as the Lift over, and has a fall of about two and a half feet. The fourth is also opposite lot 16, concession IV, is known as the Crooked rapids and has a fall of fifteen feet. The fifth is at the head of Little Dog lake and has a fall of eleven feet. The sixth is a series of falls and rapids opposite lot 15, concession VIII and has a total fall of about one hundred and fifty-four feet. No investigations as to the flow of this river were made, the Hydro-Electric Power Commission having taken over the water powers in this river and made all the necessary surveys much more accurately than could be done by us with the limited time and instruments at our disposal.

IMPROVEMENTS.

No clearings were seen within the township and the only thing that could be classed as improvements were a few log cabins which are located as follows: South half of lot 1, concession III; north half of lot 6, concession III; two on the north half of lot 7, concession III; the foundation logs on south part of lot 14, concession IV; and a deserted and decaying cabin on lot 15, concession IV. None of these appear to be occupied and we were unable to locate anyone having any knowledge of them.

GAME.

Numerous indications of deer and moose were seen; beaver are also plentiful on most of the streams; no fish of any size were seen, probably due to the small size of the streams.

We have the honour to be, Sir,

Your obedient servants,

(Signed) PHILLIPS & BENNER,

Per E. P. A. BENNER.

The Honourable, the Minister of Lands, Forests and Mines,
Toronto, Ontario.

Appendix No. 20.

SURVEY OF THE NORTHERN PORTIONS OF THE TOWNSHIPS OF WARE AND GORHAM,
DISTRICT OF THUNDER BAY.

PORT ARTHUR, December 31st, 1915.

SIR,—I have the honour to report that in accordance with your instructions I have completed the survey of the "Projected Base Line running east astronomically from the north-east angle of Gorham township together with the subdivision of remaining portions of concession VIII, township of Gorham and concession VIII, township of Ware, district of Thunder Bay," and beg to submit herewith the usual field notes of survey, also three plans.

First.—General plan on a scale of 40 chains to the inch, showing lines run.

Second.—A plan on a scale of 40 chains to the inch, showing character of land and timber in the eastern portion of concession VIII, Gorham township and east of Jacques township.

Third.—A similar plan on a scale of 40 chains to the inch of concession VIII, township of Ware and the lands west of Jacques township.

The notes in connection with the two latter plans are from personal investigations by the land ranger attached to my party who has had many years experience in such matters.

As mentioned in previous progress reports concerning the portion of Gorham township and section east of Jacques township, the land in our opinion is very largely of no value and unsuitable for agricultural purposes, and the timber being almost entirely second growth—tamarac all dead—of very little value.

For mining purposes the land may eventually be in demand; some seven or eight mining claims at the north-east corner of Gorham township may possibly bring about the discovery of copper and gold values of commercial value. There is very little development work however in evidence at present.

When surveying Onion lake and Current river, I, at the suggestion of the Engineering and Utilities Departments of the city of Port Arthur, located the

shore line where it will be when the storage reservoir at Onion lake has been as planned, raised to the maximum of 20 feet above the present temporary level by the dam designed for the new site selected, about one and one-quarter miles south of the present combined dams. The new dam will give very much increased storage and have a high factor of safety. The cost of work so far in this municipal enterprise at Onion lake has been about \$70,000.

The lands in Ware township are decidedly more inviting in character. According to the land ranger's report every lot contains more or less land adapted to agriculture as per list accompanying printed forms. The timber also is generally of useful dimensions.

In the unsurveyed portion north of Ware and south-east of Dog lake, one block of about eighteen square miles is estimated to contain nearly sixteen miles of agricultural land, the rocky ridges in some portions being very narrow and forming a very small percentage of the total area. Fair sized timber is also to be found in this locality—much of the spruce averaging from ten to fifteen inches in diameter. As shown on the plans and lists, we encountered a few instances where improvements had been made. On the western margin of this strip, at the north end of Little Dog lake a Hydro-Electric development plant is projected to utilize the magnificent fall of 350 feet between Dog and Little Dog lakes, which it is estimated will furnish an equivalent of the power produced by the Kaministiquia Power Company at the famous Kakabeka falls lower down the river. A Government reserve should be retained at this point as well as along the route of the proposed transmission line which has been located to Port Arthur.

Another water power exists at the Crooked rapids on the same river opposite concession VII, where a drop of fifteen feet occurs.

Fishing operations are being carried on at Dog lake, the catch being transported to headquarters at Port Arthur.

GAME.

Very little game, such as moose, deer, bear, partridge and rabbit were seen, the rabbit being unusually scarce during the past season. Wolves were very much in evidence and on two occasions overthrew my transit, causing considerable damage and delay.

ROADS.

Access to the Dog lake country during the summer is at present entirely by canoe. The bridges built by the former lumber companies having been swept away by spring freshets. This road can, however, be used in winter and by a comparatively small judicious expenditure could be very much improved as a summer route. The valley of Portage creek forms a natural route to the interior of a section otherwise not easily accessible. The only improvements noticed were a very fine log dwelling on the Kaministiquia river on the south boundary of concession VII, where other considerable improvements are under way. There was also a building occupied by two men near the narrows of One Island lake, probably for fishing and hunting purposes. The Finlanders who are the principal settlers in the outlying districts deserve credit for their energy and enterprise as pioneer settlers in a region which has small attraction for a less industrious class. When traversing the frontage of the Kaministiquia river across concession VIII, we carried the survey down across concession VII, where only a rough pacing traverse had here-

tofore been made. A traverse was also made connecting the triangulation points of the Trout lake survey on the boundary between Ware and Gorham township in concession VIII. On lot 1, concession VIII, Ware township, the settler Tarsti had built a house, unfinished, on what he believed to be the north half of the lot, but which our survey located on the south half.

In fractional lots it would be much fairer to the settler were the portion allotted described from a given point.

Observations were taken frequently and a check with O.L.S. Benner's work at the south-east angle of Jacques township tallied out, as regards both Azimuth and chainage, exactly with our own.

The disconnected nature of our work and the addition of land ranger (with an occasional assistant), also more than the average of wet weather have materially increased the estimated cost of a season's operations.

Should it be deemed advisable to lay out a township south-east of Dog lake a survey of the extensive lake shores could be more advantageously made on the ice during the winter.

Unforeseen circumstances have delayed the sending in of my returns at an earlier date.

I have the honour to be, Sir,

Your obedient servant,

(Signed) A. L. RUSSELL,

Ontario Land Surveyor.

The Honourable, the Minister of Lands, Forests and Mines,
Toronto, Ontario.

Appendix No. 21.

SURVEY OF THE TOWNSHIP OF COLENZO, DISTRICT OF KENORA.

KENORA, December 23rd, 1915.

SIR,—I have the honour to report that under instructions from your Department dated July 27th, 1915, I have surveyed the township of Colenzo into farm lots and submit herewith my plans and field notes of the survey.

TIMBER.

This township is covered with growth of small jack pine, poplar, spruce, tamarac, birch and balsam. With the exception of a few trees of red pine on the shore of Rice lake, and a small quantity of scrub ash, elm and oak on the banks of the Wabigoon river, the better class of timber is entirely lacking.

On the hills and ridges the timber is for the most part short, scrubby jack pine, spruce and birch 3 in. to 8 in. in diameter; of no commercial value, being too

small for anything but cord wood, and too far away from railway stations for that to be of any value.

The flats and ravines have a larger growth of timber, principally poplar and spruce 3 in. to 16 in. in diameter, but are in such small quantity, and so badly scattered, that it is doubtful if there would be a larger quantity than needed to supply the settlers need.

The swamps have also a few spruce 3 in. to 16 in. in diameter, but for the most part the timber in the swamps is of a poor quality. The tamarac is of use for no other purpose than for fire wood, as ninety per cent. of it is dead and the balance dying.

On the rolling land where soil is clay or clay loam, jack pine and poplar are the principal timbers, and are for the most part short and scrubby but sound and run in size from 3 in. to 12 in. in diameter. The timber larger than 8 in. or 9 in. in diameter is scattered, and the jack pine would be of very little value for ties on account of its shortness and roughness.

On the sand and boulder lands the timber is principally jack pine and spruce, and is sound and smooth timber from 3 in. to 11 in. in diameter. There is such a small quantity of this class of timber and it is so badly scattered that it would be of very little commercial value.

On the banks of the Wabigoon river there is a small amount of elm, ash and oak timber 3 in. to 12 in. in diameter, but for the most part it is short and very scrubby and of very little value. More detailed information follows:

Con. I, Lots 1 and 2.

On the hills and ridges of those lots the timber is small jack pine, spruce, poplar and birch from 3 in. to 8 in. in diameter and suitable for no other purpose than cord wood. In the valleys there is a small quantity of scattered poplar and spruce from 4 in. to 10 in. in diameter.

Con. I, Lots 3 and 4.

The timber on the south and east parts of those lots is small jack pine, spruce, poplar and birch from 3 in. to 8 in. in diameter, on the north and west the timber is slightly larger, on this part of the lot there is a small amount of scattered jack pine large enough for ties.

Con. I, Lots 5 and 6.

Approaching Colenso creek the timber is of a better class. On the north half lot 6 there is a small bunch of fairly good spruce from 4 in. to 16 in. in diameter, but the amount is small. There is also some scattered jack pine, large enough for ties. The bulk of the timber is jack pine, poplar, spruce, tamarac and balsam 3 in. to 8 in. in diameter.

Con. I, Lots 7 and 8.

The timber on those lots is for the most part small jack pine, poplar, spruce, birch, tamarac and balsam 3 in. to 8 in. in diameter, with small quantity scattered jack pine and spruce up to 12 in. in diameter. On the north half lot 7 on the shore of Rice lake, there are a few red pine trees 14 in. to 18 in. in diameter.

Con. I, Lots 9 and 10.

On the south half of those lots there is a small quantity of scattered jack pine, poplar and spruce up to 14 in. in diameter. Bulk of the timber is spruce, jack pine, poplar, birch, tamarac and balsam 3 in. to 8 in. in diameter. North half of lots is mostly marsh and lake.

Con. I, Lots 11 and 12.

On the south part lot 11 there is a small amount of jack pine, poplar and spruce 3 in. to 11 in. in diameter. On north half lot 12 there is a small amount of jack pine, spruce and poplar 3 in. to 8 in. with few scattered jack pine up to 11 in. diameter. Those lots are mostly marsh and muskeg.

Con. II, Lots 1 and 2.

The timber on those lots is small, smooth jack pine, spruce, and poplar 3 in. to 9 in. in diameter. About thirty per cent. of those lots is an old brûlé.

Con. II, Lots 3 and 4.

On those lots in the vicinity of Colenso creek there are some poplar and spruce up to 16 in. in diameter, and scattered over those lots is a small quantity of jack pine suitable for ties, and poplar and spruce large enough for pulp wood. The bulk of the timber is jack pine, spruce, poplar, tamarac and balsam 3 in. to 8 in. in diameter.

Con. II, Lots 5 and 6.

Those lots are covered with a growth of small jack pine, poplar, spruce, tamarac, birch and balsam 3 in. to 8 in. in diameter, with few scattered jack pine, poplar and spruce in the flats and ravines up to 11 in. in diameter.

Con. II, Lots 7 and 8.

The west part of those lots is almost entirely swamp with a very poor quality of spruce timber. On the south part of those lots, that is the part bordering on Rice lake, there is a fairly good bunch of spruce, jack pine and poplar 4 in. to 14 in. in diameter. On the remainder of those lots the timber is scrubby jack pine, poplar, spruce, birch and balsam 3 in. to 8 in. in diameter, with few scattered trees up to 12 in. in diameter.

Con. II, Lots 9 and 10.

Those lots have large amount of swamp and marsh with poor quality of spruce timber. On the clay land there is jack pine, spruce, poplar and balsam mostly of a small size, with few scattered trees of spruce and poplar up to 11 in. in diameter.

Con. II, Lots 11 and 12.

The timber on those lots is small scrub jack pine, poplar, spruce, balsam and tamarac 3 in. to 8 in. in diameter. There is a good deal of those lots marsh and muskeg, with no timber of any kind.

Con. III, Lots 1 and 2.

There is a great deal of swamp on the west part of those lots. Tamarac is mostly dry and the spruce is faulty and small. There are few scattered spruce around edges of swamps up to 14 in. in diameter. On the east part of lots the timber is jack pine, spruce, poplar, birch and balsam 3 in. to 8 in. in diameter.

Con. III, Lots 3 and 4.

On that part of those lots lying south and east of Mud lake, except along banks of Colenso creek, the timber is small jack pine, poplar, spruce, tamarac and balsam 3 in. to 8 in. in diameter. Along banks of Colenso creek and north and east of Mud lake, the timber is larger but scrubby, jack pine, poplar and spruce 3 in. to 12 in. in diameter.

Con. III, Lots 5 and 6.

On those lots there is a poplar flat of considerable extent with timber small, 3 in. to 7 in. in diameter. Balance of lots similar to that south of Mud lake.

Con. III, Lots 7 and 8.

With the exception of a very small amount of spruce timber in the flats and swamps up to 12 in. in diameter, those lots have very little else than scrub jack pine, spruce, poplar, tamarac and birch 3 in. to 7 in. in diameter.

Con. III, Lots 9 and 10.

On south part of those lots there is a narrow strip of timber with some jack pine and spruce up to 11 in. diameter. On north part there is a small swamp with few spruce up to 16 in. diameter. Balance of lots is covered with scrub spruce, jack pine, poplar, birch and balsam 3 in. to 7 in. diameter.

Con. III, Lots 11 and 12.

Timber on those lots is small jack pine, poplar, spruce, tamarac, birch and balsam 3 in. to 8 in., not suitable for other purpose than cord wood.

Con. IV, Lots 1 and 2.

There is a good deal of swamp on those lots with poor quality of timber which is scrub spruce, poplar, jack pine, tamarac, birch and balsam 3 in. to 8 in. with very few scattered spruce up to 16 in. diameter.

Con. IV, Lots 3 and 4.

The north part of those lots is covered with scrub jack pine, spruce, tamarac, poplar, birch and balsam 3 in. to 8 in. diameter. On the south part the timber is a little larger, and has some jack pine and poplar scattered through it up to 11 in. in diameter.

Con. IV, Lots 5 and 6.

Those lots are covered with a small class of jack pine, poplar, spruce, birch, tamarac and balsam 3 in. to 8 in. diameter, with timber running a little larger toward the west side and in the flats where there are a few scattered trees up to 12 in. diameter.

Con. IV, Lots 7 and 8.

With the exception of small swamp which has a few spruce up to 16 in. diameter, those lots are similar to lots 5 and 6. Timber of the same quality and size.

Con. IV, Lots 9 and 10.

Timber on those lots is similar to that on the previous ones.

Con. IV, Lots 11 and 12.

The north part of those lots has a good deal of swamp with dead tamarac and some spruce up to 14 in. in diameter, balance of lots is covered with fairly good class of jack pine, poplar, spruce and birch 3 in. to 10 in. diameter.

Con. V, Lots 1 and 2.

The south-east part of those lots is covered with scrub spruce, poplar, birch, tamarac and balsam 3 in. to 8 in., of no commercial value. Balance of lots is marshes or lakes.

Con. V, Lots 3 and 4.

The north-east part of those lots has a spruce swamp with few spruce up to 12 in. diameter. Balance of lots is covered with jack pine, spruce, poplar and birch 3 in. to 8 in. in diameter.

Con. V, Lots 5 and 6.

The south-west part of those lots has some scattered spruce and jack pine timber up to 12 in. diameter, and south of Chanley lake there is a small bunch of jack pine timber suitable for ties 6 in. to 14 in. diameter. Balance of lot jack pine, spruce, poplar, birch, tamarac and balsam 3 in. to 8 in.

Con. V, Lots 7 and 8.

In the flats on those lots there are some poplar and spruce up to 16 in. diameter. Balance of lots are covered with jack pine, poplar, spruce, tamarac and balsam 3 in. to 9 in.

Con. V, Lots 9 and 10.

Along the flats and ravines in those lots there is some scattered timber up to 12 in. diameter suitable for ties or pulpwood. Balance of lots jack pine, poplar, spruce, and birch 3 in. to 8 in. diameter.

Con. V, Lots 11 and 12.

The timber on those lots is jack pine, poplar and spruce 3 in. to 8 in. in the flats and on the clay land, on the rock hills it is scrub timber 3 in. to 6 in. of no value.

Con. VI, Lots 1 and 2.

On the south-east part of those lots there is on the ridges a good quality of spruce and jack pine timber 3 in. to 12 in. in diameter. Balance of lots is either scrub timber 3 in. to 6 in. in diameter or brulé.

Con. VI, Lots 3 and 4.

A small portion only of those lots is covered by green timber, balance is brulé. Where timber is green it is small jack pine, spruce, poplar, birch and balsam 3 in. to 7 in. in diameter.

Con. VI, Lots 5 and 6.

Similar to above.

Con. VI, Lots 7 and 8.

Similar to above, excepting that green timber is little larger, 3 in. to 10 in. diameter.

Con. VI, Lots 9 and 10.

South part of lots jack pine, poplar, spruce, birch and balsam 3 in. to 10 in. Some spruce and poplar in swamp on north side to 14 in. Balance scrub timber 3 in. to 6 in. or brulé.

Con. VI, Lots 11 and 12.

North part of lots is brulé, balance jack pine, poplar, spruce, birch and balsam 3 in. to 11 in. diameter.

SOIL.

In the township of Colenso on the rolling land the soil is for the most part a white clay loam. This soil is very similar to that of the township of Wabigoon to the west and Mutrie to the south, and has been shown to be, with proper cultivation, a good class of agricultural land.

The soil in the valleys and on the level ground is mostly a white soft clay covered with muck 4 in. to 6 in. in depth.

Along Colenso creek there is a good deal of level and low rolling land of a good quality of clay and clay loam. In places along this creek there is a considerable amount of good hay land 6 ft. to 8 ft. above the creek.

Along the Wabigoon river there is a considerable amount of marsh on some of which there is a considerable amount of hay growing. But for the most part those marshes are useless with the present water level of the Wabigoon river.

There is a large amount of swamp land on lots 1 and 2, concessions IV and V; lots 8 and 9, concessions II and III; lots 2 and 3, concession III; lots 10 and 11, concessions I and II; those swamps are very wet.

In concession VI there is a very small percentage of good land, lots 2 and 3 and 8 and 9 are the only ones with large amounts of good clay land, the others have a considerable quantity of rock and sand.

In concession I, lots 1, 2 and 3 have very little land suitable for agricultural purposes, being principally lake and rock.

With the exception of those places mentioned above every lot has a considerable amount of good agricultural land, principally clay loam.

There is on some of the lots a small amount of sand and gravel, especially on lots 6 and 7, concession V, and lots 9, 10, 11, concession IV, with the exception of those places we saw very little sand.

Rock.

On concession I, lots 8, 9, 10, 11 and 12, in the township of Colenso, the rock formation is an altered trap rock. On all other parts of the township the rock is either granite or granitoid gneiss, showing no sign of mineral.

On concession VI the rock hills are rolling and continuous, in some parts attaining a height of 100 feet.

Lots 1, 2 and 3 in the 1st concession are, with the exception of Lake George, almost entirely rock.

In other parts of the township rock hills and ridges are numerous but are for the most part rolling and do not appear to be either long or wide.

The slopes of a number of those hills are rock, but on top there is a good quality of soil.

The main hills run in a north-east and south-westerly direction. The township of Colenso is fairly well watered. There are thirteen lakes, one river and numerous creeks within its borders.

(1) Lake George, concession I, lot 1, is a good clear water lake, apparently a spring lake of good depth. On the north side there is a small sand and gravel beach, balance of lake has rocky shore.

(2) Johnson lake, concessions V and VI, lots 1 and 2, is a shallow highly coloured lake and is almost entirely surrounded by hay marshes; not suitable for summer resort.

(3) Rice lake, concessions I and II, lots 7, 8 and 9, is a lake on a level with the Wabigoon river, from which it is separated by a narrows two chains in width and some five chains long. The water is slightly coloured on account of the large beds of wild rice. There being a very small portion of the lake only in which rice does not grow. It has a depth of from 1 ft. to 10 ft. and is not suitable for summer resort.

(4) Mud lake, concession III, lots 4 and 5, is a highly coloured muskeg lake, entirely surrounded by marshes; is very shallow, 18 inches in depth with a very soft bottom. When Colenso creek is high the water flows from it into this lake. Not suitable for summer resort.

(5) Chanley lake, concessions V and VI, lots 5 and 6, is a shallow, clear water lake. On the north-west and east sides the shores are marshy, balance of lake has sand or rocky shores.

(6) Leo lake, concession VI, lots 9 and 10, is a slightly coloured lake at present flooded by beaver dams. South shore and forty per cent. of north shore are rocky, balance of shore is marsh and drowned land. Not suitable for summer resort.

(7) Louis lake, concessions V and VI, lot 11, is a highly coloured lake, flooded by beaver dams. West shore of lake is rocky, balance drowned land and marsh. Not suitable for summer resort.

(8) Final lake, concession II, lots 9 and 10, a small, highly coloured, shallow lake, entirely surrounded by marshes. Not suitable for summer resort.

(9) Cliff lake, concession I, lots 2 and 3, a small lake with slightly coloured water, with high hills on north and south sides. Not suitable for summer resort; water shallow.

(10) Bog lake, concession IV, lot 1, east boundary, a small highly coloured lake, surrounded by marshes, not suitable for summer resort, water shallow.

(11) Boundary lake, concession VI, lot 9, north boundary, a small muskeg lake entirely surrounded by marsh and drowned land. Water is highly coloured and shallow. Not suitable for summer resort.

(12) Favel lake, concession I, lots 11 and 12, water is highly coloured and shallow, and the part on township of Colenso, excepting a very small amount on the north-west corner is entirely surrounded by marshes. Not suitable for summer resort.

(13) Meadow lake, concessions I and II, lot 10, a small, highly coloured lake surrounded by marsh. Water flows into this lake from the Wabigoon river during high water.

RIVERS.

In its course through the township of Colenso the Wabigoon river is a slow flowing stream 3 chains to 5 chains in width, and for the greater part of the way flows through a marshy country; in such places there is a narrow clay bank along each side of the stream. The water is slightly muddy and from 10 ft. to 20 ft. in depth. All of the creeks from Colenso Township eventually find their way to this river. The water is slightly contaminated from the Dryden Pulp Mill.

COLENZO CREEK.

The source of this creek is Rosamond lake, 7 miles east of Morgan station on the G.T.P. Railway and enters the township of Colenso from the east in concession III. With the exception of a short distance in lots 8 and 9 it flows through this township until emptying into the Wabigoon river. It is from 50 to 75 links in width according to the seasons of high or low water. The water is good but slightly muddy on account of the beavers continually working in it. There are a number of beaver dams which control depth of water. There are also a few rapids which have very little drop and a very small quantity of water flowing over them, except after heavy rain storms.

LONG LAKE CREEK.

The source of this creek is Long lake on north side G.T.P. Railway east of Morgan station. It enters Colenso township from the north in lot 6, concession VI, and leaves township in lot 12, concession IV. This creek has highly coloured water

and is from 15 to 25 links in width. It has few rapids with very little water coming over them. It has numerous beaver houses and dams, which make a considerable amount of flooded land. Its depth is from 2 ft. to 4 ft.

There are a number of other small creeks throughout the township which are sufficiently large to warrant settlers a constant supply of water for household and barns. Some of those creeks are apparently from springs as the water is both clear and cold.

WATER POWERS.

There are none in the township.

NAVIGATION.

The Wabigoon river is sufficiently large and deep to be navigable for small steam boats or craft of other kind. Colenso creek is navigable for canoes for its full distance across the township. There are a few short portages but the greatest obstacle is the large amount of driftwood caused by beavers.

ISLANDS.

On the Wabigoon river in concession I, lot 10, there are two small islands. No. 1 is a low level island with marshy shores. No. 2 is merely rock with a few trees growing on it; not suitable for summer resort. On Favel lake there is one low rocky island not suitable for summer resort. On Johnson lake there is one small island, low and rocky, not suitable for summer resort. On Rice lake there is one small rocky island. It has few trees growing on it, but it is not suitable for summer resort.

ROADS.

Throughout the township of Colenso there are numerous roads branching from one of two main roads. One of those main roads commences at Vermilion bay, township of Langton, and has a floating bridge strung on cables across the Wabigoon river. The other main road commences at Waldorf siding in the township of Mutrie; there is no bridge across the Wabigoon river on this road. Both of those roads go to an old G.T.P. construction camp one mile west of Morgan station on the G. T. P. Railway.

With the exception of concession VI roads can be easily made as the land in most places is fairly level and has very few steep hills.

FISH.

In the Wabigoon river, pike, pickerel, gold eyes and suckers are plentiful. Colenso creek has some pike. Of the other lakes we had no way of ascertaining what fish are in them.

ANIMALS.

Of the larger animals moose are plentiful along the east and north parts of the township, while along the streams and swamps deer are abundant. Of the smaller animals beaver and wolves are the most numerous and are very plentiful. There are also mink, skunk, fisher and fox.

I have the honour to be, Sir,

Your obedient servant,

(Signed) EDMUND SEAGER,

Ontario Land Surveyor.

The Honourable, the Minister of Lands, Forests and Mines,
Toronto, Ontario.

Appendix No. 22.

SURVEY OF AN ADDITION TO THE TOWNSHIP OF NEPIGON, DISTRICT OF
THUNDER BAY.

NIPIGON, ONT., June 15th, 1916.

SIR,—I beg to submit herewith a report on the survey of an addition to the township of Nepigon in the district of Thunder Bay, surveyed by me under instructions from the Department of Lands and Forests dated Toronto, March 21st, 1916. This survey consisted of the addition of four concessions to the old township of Nepigon, numbered VI, VII, VIII and IX, with sixteen lots in each concession. This addition is bounded on the south by the township of Lyon, on the north by the township of Booth and on the west by unsurveyed lands.

Pursuant to instructions, I commenced my survey at a post planted by O.L.S., Scott to mark the northwest angle of lot 14 in the 5th concession. From that point I ran my side line between lots 14 and 15 west astronomically 4 miles, planting a post at the end of each mile. From the several mile posts on that side line I ran my concession lines south astronomically to intersect the north boundary of the township of Lyon, and north astronomically to intersect the south boundary of the township of Booth—with the exception that I ran the west boundary of Nepigon township north and south astronomically from the side line between lots 12 and 13, rather than from the line between lots 14 and 15, this having been found to be the more accurate and practicable method on the ground.

I ran the side lines in these concessions between lots 12 and 13, 10 and 11, 8 and 9, 6 and 7, 4 and 5 and 2 and 3 west astronomically from the posts planted by O.L.S. Scott on the west boundary of concession V, or from points on said boundary re-established by me. With regard to the said west boundary of concession V—this line had been run in 1873. But three of the original posts could be found, one of these being a half mile post, this having undoubtedly been planted in error for it was planted where no post should have been planted and was then incorrectly marked as well. I re-ran the entire length of this boundary. Settlers had taken up the lots in

concession V and had blazed lines and trails sometimes on two, sometimes on three sides of the trees. Without running the line with the transit it was impossible to determine with any degree of accuracy the location of the line. This line has therefore been run, blazed correctly and posted according to the Survey Act. As stated above, from points on this line re-established by me, I ran my side lines between the lots west astronomically to intersect the west boundary of the township as run by me.

In pursuance with my instructions, I planted substantial wooden posts, in almost every case of spruce, to mark the angles of the lots. All posts were accurately planted on the lines of survey. Bearing trees were taken in accordance with the instructions and mounds of stones placed about the posts where necessary.

Alongside the wooden posts, at the points noted in my field notes, I planted iron posts marked similar to the wooden posts, alongside which same were planted. In several instances it was found that it was impossible to plant said iron posts due to the granite. I then had the iron post planted at a different point from that as indicated on the projected plan sent me, careful note having been made of such cases. In all cases the posts were correctly marked with the scribe this having been impressed upon the chainmen with great care.

I made a traverse survey of the Black Sturgeon river pursuant to instructions and beg to enclose plan and notes of same. I have noted in these notes and on the plan where the rapids are located and the portages. I have made no reservations to the Crown along this river. At the time this survey was made, the river was at its highest. From inquiries made here I find that for the greater part of the year the river is very low, barely covering the rocks so it is said. There was some 15 feet of water when I made my traverse. There were no islands in the river through the section of it traversed by me. I have divided my traverse into three sections, as indicated on notes for the same. I used the method of continuous bearings for the traverse, commencing at a side line and carrying out the work as stated above, in three sections. This will be quite clear from the plan and notes. The stadia was used throughout the survey, except in cases where the lines of the survey intersected the river, when the distance was obtained with a four chain tape.

I beg to state that I found it necessary to re-run the north boundary of the township of Lyon. This line was run originally in 1878. It had been very poorly blazed evidently and also it would appear that there was little timber of any size there at the time said line was run. No posts were found on this line except at the southeast corner of this addition surveyed by me. Here I found an old post lying on the ground, rotten. I therefore re-ran this line, blazed it correctly and posted it where my survey lines between the several concessions intersected it.

I made a separate traverse of each lake met with in the survey of this addition. These traverses were made with the stadia. I beg to enclose plan of said traverses and field notes of same. In each case these traverses have been connected with some known point on one of my survey lines. Said lakes, as well as the Black Sturgeon river, have also been plotted on my final plan and upon my timber plan. I have marked on each lake the area of same and in computing the areas of the lots in the different concessions I have subtracted the area of the lake, lakes, or river in said lot.

I beg to state that my lines were well cut out and well blazed, particular care having been taken with regard to the blazing, knowing as I do, the importance placed by the Department upon this matter. Astronomical observations were taken on the west boundary of concession V before commencing the lines which I ran westward between the lots. Finding that my lines were checking well for distance and angles of intersection throughout the survey I did not take further observations through the

township. A glance at the plan and field notes will show that the lines checked well. As will be noticed from the plan lot 1 is very narrow, due to errors in the previous survey of the township of Nepigon, and the same may be said of concession VI.

TIMBER.

As shown by the field notes and by the timber plan, this township addition is very well timbered. It will be unnecessary to go greatly into detail further than to state that the entire township is thickly timbered with spruce which varies from 6 to 20 inches in diameter, an average being about 8 inches. In many of the lots, this is found in large quantities. I might say that the whole central and southeasterly parts of the township are particularly well covered with this spruce. Birch is also found in considerable quantities, this being very large. There are great quantities of it at about 20 inches. The balsam runs large but it is not in such large quantities as either the birch or the spruce. There is little poplar, some large cedar which is for the greater part rotten. Some good cedar is to be found near the creeks noted in the field notes. Scattered white pine was found in running the lines but this was not in large quantities. Almost every lot contained some, I would say that there were about 35 of these to a lot, varying from 24 to 40 inches in diameter. Further comment of the timber is rendered unnecessary by the inclusion of the timber plan in my notes and my field notes which I believe will be found to be rather complete with regard to notes on the timber and soil.

SOIL.

In making this survey I impressed upon the chainmen the necessity of noting carefully the soil, and this, I believe, has been done with all reasonable care. From a glance at my timber plan it will be seen that for the greater part this township is rocky, this rock being granite. Here I might say that no economic minerals were met with on this survey.

I have made a note of the following lots which were found to contain good soil, this being a clay loam—In concession VI, lots 2, 3, 4, 5, 6 and 7; in concession VII, lots 1, 2, 3, 4, 5 and 7; in concession VIII, lots 1, 2, 3, 4 and 5; in concession IX, lots 2, 3, 4, 5, 6. These lots for practically their entire acreage have good soil. This does not condemn many of the other lots in the several concessions, for in the valleys it was found that there was good soil. My survey lines, as is often the case, ran through the roughest and hilliest of the country in the township. In the valleys my men found good soil. This was not shallow, but had up to three and four ft. depth over the granite. But I would draw particular attention to the lots I have named above as being undoubtedly the best in this addition. But, as stated, many of the adjoining lots will be found to have from 30 to 70 per cent. of good soil. I regret that I was unable to cover personally more of the area contained in these lots. Along the Black Sturgeon river for the distance traversed by me, I found low, flat banks of good clay soil, this having considerable depth. A glance at the field notes will show some hills and many sheer drops of great height. The heights of these have not been at all exaggerated, as would appear possible. I checked with the transit by vertical readings several of these and found that my chainmen had in several instances under, rather than over, estimated the heights.

Most of the lakes encountered were from 6 to 15 feet in depth and contained some trout. The Black Sturgeon river is also a good trout stream, although at the time I made this survey, it was fairly alive with large suckers. The water in the lakes was quite clear, good drinking water.

I enclose with this report my account for said survey, I computed the river distance from my traverse of same. I also beg to submit herewith my final plan, field notes, timber plan, affidavits, etc. May I add that in this survey I met with two settlers in this addition. I enclose statement with regard to their improvements. Mr. Lawrence is upon the east half of lot 2 in concession VII and Mr. Miller upon the east half of lot 3 in concession VII. These men inform me that they are going to make application for these lots. Both of these men worked for me upon this survey. I believe they will make good settlers and I beg to suggest that their applications for these lots will receive consideration first, at the time the said lots are placed on sale, if that is the intention of the Department with regard to the lots in this addition.

I trust that this report, the plan and field notes will be found quite satisfactory.

I have the honour to be, Sir,

Your obedient servant,

(Signed) M. E. CROUCH,

Ontario Land Surveyor.

The Honourable, the Minister of Lands, Forests and Mines,
Toronto, Ontario.

Appendix No. 23.

SURVEY OF THE TOWNSHIP OF HELE, IN THE DISTRICT OF THUNDER BAY.

NIPIGON, ONT., August 26th, 1916.

SIR,—I beg to submit herewith a detailed report on the survey of the township of Hele in the district of Thunder Bay, surveyed by me under instructions dated July 4th, 1916.

The township of Hele may be reached by taking a road from the town of Nipigon to the east boundary of the recently surveyed addition to the township of Nipigon; thence across said addition a distance of four miles, the west boundary of this addition being the east boundary of the township of Hele. Or, this township may be reached by taking the C.P.R. west from the town of Nipigon a distance of about 12 miles to the Black Sturgeon river, thence up the river across the south-west corner of the addition to Nipigon township, the river crossing the east boundary of Hele township in the third mile from the south boundary. This latter route is the one used by me in transporting my supplies in for the survey. There are few portages and there is sufficient depth to the river to make this a most convenient method of reaching the township.

The township of Hele is eight miles long in a north and south direction, six miles wide in an east and west direction. It consists of six concessions, numbered from east to west, with sixteen lots in each concession, numbered from south to north.

It is bounded on the east by the recently-surveyed addition to the township

of Nepigon, on the north and west by unsurveyed land, on the south concessions X and XI of the township of Lyon lie south of concessions I and II of Hele, and concessions I, II, III, IV of Stirling township lie south of concessions III, IV, V, VI of Hele. The township of Booth lies to the northeast of Hele township.

Pursuant to instructions, I commenced my survey at the southwest angle of the addition to the township of Nepigon recently surveyed by me. I chained westerly along the north limit of Lyon township and Stirling township a distance of six miles, planting posts at the end of each mile. From said posts I ran my lines between the several concessions north astronomically to intersect the north limit of Hele, as subsequently surveyed by me. I commenced at the southwest angle of the addition to the township of Nepigon and chained northerly along the westerly limit of said addition a distance of eight miles (see notes) planting posts at the end of each mile, also at the half miles as per instructions. From the mile posts thus planted I ran my lines between the alternate lots west astronomically to intersect the westerly limit of Hele township, as subsequently surveyed by me. In every case the jogs between the posts planted by me and posts planted on the boundaries of Lyon, Stirling, Booth and Nepigon townships, were carefully noted.

I beg to state that particular attention was paid to the correct marking and planting of all posts, these conforming with the requirements of my instructions. Iron posts were planted alongside the wooden posts at the points indicated on the projected plan accompanying my instructions. Bearing trees were noted in all but a very few instances.

The lines are blazed according to instructions. Exceptional care was taken with this, one man devoting his entire time to this work. This was done in view of the importance which I know is placed by your Inspector upon this part of the work. My chainmen were experienced men. Their work was carefully and, to the best of my knowledge, accurately done. Throughout the survey of this township, your instructions have been closely adhered to.

The Black Sturgeon river crosses this township, flowing in a general south-easterly direction. This river, as well as all lakes in the township, I carefully traversed and have plotted same upon a scale of ten chains to the inch. These traverses with the notes on the same, accompany this report.

The soil and the timber in this township were most carefully noted. This work was not left to the chainmen, but was done by my transit man and myself.

SOIL.

As will be noted from my timber plan, a very considerable amount of the soil in this township is clay. This is a white clay, not the red clay found in the vicinity of the town of Nipigon. It is for the most part similar to the soil found in York County. Practically all of concessions IV, V, VI lie in this clay belt, also the entire valley of the Black Sturgeon river. In concessions I, II, III, it will be seen from my field notes, that there is clay soil to be found. This is the same as that found to the west, glacial deposit, but through this, there are to be found ridges of sand. Along the Black Sturgeon river, through concessions I, II, III, there are sheer cliffs on either side of the river, varying in height from 150 to 400 ft. These completely run out on the south side of the river in concession III. On the north side of the river the cliffs reach their highest point in the easterly part of concession III. From this point they gradually diminish in height to the west. These cliffs are of granite. At some places through the lots, both north and south

of the river, there are outcroppings of this same granitic formation. The following lots I consider to consist entirely of very excellent soil:—

Concession I, lots 5,

Concession II, lots 8, 9, 13.

Concession III, lots 9.

Concession IV, lots 3, 4, 10.

Concession V, lots 2, 3, 4, 11, 12.

Concession VI, lots 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16.

The following lots contain good soil but not of the same quality as found in those mentioned above; in some there may be found outcroppings of granite:—

Concession I, lots 4, 10, 12, 16.

Concession II, lots 2, 3, 4, 7, 10, 11, 12, 15.

Concession III, lots 1, 2, 3, 4, 5, 6, 10, 11, 16.

Concession IV, lots 1, 2, 5, 6, 7 11.

Concession V lots 1, 5, 6, 7, 8, 9, 10, 13,

Concession VI, lot 1.

The following lots contain very poor soil and I consider them to be worthless from an agricultural standpoint:—

Concession I, lots 1, 2, 3, 6, 7, 8, 9, 11, 13, 14, 15.

Concession II, lots 1, 5, 6, 14, 16.

Concession III, lots 7, 8, 12, 13, 14, 15.

Concession IV, lots 8, 9, 12, 13, 14, 15, 16.

Concession V, lots 14, 15, 16.

Concession VI, lots none.

It should be borne in mind that this report on lots is based upon the actual survey lines, not upon a thorough covering of the land throughout the entire lot. In concluding my remarks upon the soil in this township, I would say that at least sixty-five per cent of the soil met with is a clay, or light sandy loam, a very high percentage for the district. It will be noted from this result of the actual survey that it fully bears out the reports made to me by my men when investigating this country preliminary to the writing of the report which I submitted for your approval some time previous to the issuing of instructions for the survey.

TIMBER.

Hele township is very well timbered. There is little pine to be found, some few being encountered scattered throughout the township. The westerly half of the township, concessions IV, V and VI, is well timbered with excellent spruce running from 4 to 15 inches in diameter. There are quantities of this at an average of 10 inches. Some birch, balsam and cedar, running from 6 to 15 inches in diameter were met with in the westerly part of the township, but for the greater part there is practically nothing but the spruce as mentioned above.

In the easterly half of the township, spruce, birch and balsam from 3 to 15 inches were found—there being more of the birch and balsam here than in the westerly half, the spruce not being found in such quantities as in the westerly

half. Through the entire valley of the Black Sturgeon river good spruce was met with, both as regards quantity and quality. Excellent piling could be secured here to meet demands, now most urgent, for this in the cities of Port Arthur and Fort William—but some little difficulty would be encountered in getting this out, most of my men believing that the river would give trouble in handling of piling over 45 ft. in length. This belt of good spruce extends approximately a half mile on each side of the river. Some banksian pine is found along the hills bordering the river, this pine running from 3 to 10 inches in diameter. Throughout the township, some poplar is to be found, this for the greater part being small in size. In concluding these remarks on the timber, I would state that I have not seen a township much better timbered than Hele. The spruce is large, it is found in liberal quantities. I beg to refer you to my timber plan for details as to the timber in the several separate lots. You will note that the better timber is to be found on the land best adapted for farming.

GAME.

Moose and red deer are very plentiful in this township. In the river are to be found pike and black bass, no trout. The pike run to a large size.

LAKES.

The lakes met with in the survey of this township were of clear, cold water, fed by small streams from the hills. For the most part the banks are rocky. No fish were to be found in the lakes.

ROADS.

There are, of course, no roads in this township. It is easily accessible, however, from Nipigon by roads through Nipigon township and from Hurkett on the C.P.R. by trails and roads through Stirling township. With the exception of the lots bordering the Black Sturgeon river, the greater number of the lots could be reached by roads following the several concessions and lot lines of the survey. In most parts of the township these could be easily built at a comparatively small cost.

In conclusion I beg to state that throughout the survey of this township I have carefully followed my instructions with regard to the same. I have put special attention upon the soil and timber, and I believe my notes will fully cover all the lots as regards these details. I beg to enclose herewith plan and field notes, traverse plans and notes of the Black Sturgeon river and lakes. Trusting that my work and the report upon the same, may be found to be satisfactory,

I have the honour to be, Sir,

Your obedient servant,

(Signed) M. E. CROUCH,

Ontario Land Surveyor.

The Honourable, the Minister of Lands, Forests and Mines,
Toronto, Ont.

Appendix No. 24.

SURVEY OF THE TOWN PLOT OF GRANT, IN THE DISTRICT OF THUNDER BAY.

NORTH BAY, ONTARIO, September 8th, 1916.

SIR,—Herewith we beg to report the completion of the survey of the townsite of Grant, on the National Transcontinental Railway, and in the district of Thunder Bay, performed under instructions from your department bearing date of May 31st, 1916.

Grant is a divisional point on the National Transcontinental Railway, 254 miles west of Cochrane, and promises to become a very important railway point. Even at the present time, the railway there undertakes repairs of a fairly heavy order; and, as the shops there are designed for heavy order work, the added population will be a natural result to the traffic acceleration. To the townsite there is tributary a very large area of first-class arable land of the usual spruce-timbered, moss-covered, clay loam type. The future, therefore, of Grant from an agricultural viewpoint, appears to be very bright.

The townsite is quite level, but with a good natural drainage to the north. The best drained lots, at the present time are in the row fronting the track and running from Second avenue east; and in the second and third rows of lots on the curve. The balance of the townsite, while wet at the present time, will be quite dry when the spruce bush is cut down and the moss capping burned off.

All four angles of each lot were staked, all stakes being of spruce and squared 3 inches or better on the face, and well driven home. On these posts were marked with black paint the numbers of the adjoining lots or streets. At certain block corners, iron stakes were planted and these were similarly marked with a cold chisel.

First avenue was made to coincide with the sewer which at present runs about three-quarters of a mile north from the track to empty into a small lake. Except between First and Second avenues the townsite is four lots deep, each of 132 feet depth. All regular lots are 66 feet in width, the irregular widths occurring at First avenue, Fourth avenue, and on the curved portions of the townsite.

There are already certain private buildings on the townsite, and these are all laid down on the plan and detailed in the list of lots.

The field work was commenced on the 31st of July and completed on the 12th of August.

Accompanying this report are a plan of the townsite on a scale of 200 feet to an inch, a list of all the lots, and the customary returns consisting of pay roll, vouchers, etc., etc.

All of which is respectfully submitted.

We have the honour to be, Sir,

Your obedient servants,

(Signed) MCAUSLAN & ANDERSON.

The Honourable, the Minister of Lands, Forests and Mines,
Toronto, Ontario.

Appendix No. 25.

SURVEY OF THE TOWNSHIP OF CODY, DISTRICT OF TIMISKAMING.

January 14th, 1916.

SIR,—In accordance with instructions to Ontario Land Surveyor, C. H. Fullerton, to sub-divide the township of Cody, district of Timiskaming, bearing date of July 9th, 1915, which instructions have been transferred to me by your letter of November 29th, 1915, I have to report as follows:—

The instructions have been carried out to the letter with the exception of the lines between concessions II and III, the line between concessions III and IV and the line between concessions V and VI. These lines were run west to the west boundary of the township of Cody from points in the north and south line between lots 10 and 11. In the first case the error was $13\frac{1}{2}$ links south of the 122nd mile post; in the last two lines between concessions III and IV, and V and VI, the error was 11 links, each line hitting south of mile-post 123 and 125. The reason of the survey being made in this manner was to save time, and Mr. Fullerton, who delivered me the instructions informed me that he had arranged this with your department in Toronto.

The lines were all run with a transit and well cut out and blazed. Every care was taken to make the survey accurate. In every instance posts were planted in the best possible manner and bearing trees were taken at all points with the exception of the road posts at the intersection of the line between concessions V and VI with the Porcupine river, the intersection of the line between concessions II and III, I and II, and the line between lots 8 and 9 with the westerly water's edge of Night Hawk lake. These points were all in muskeg or swampy ground and bearing trees were not within reasonable distance.

TIMBER.

The southerly part of the township of Cody up to within 10 chains more or less of the line between concessions IV and V, has been burned over and the timber is, therefore, of no value. The fire has not gone through and burned the ground clean, but has left the bush in a very bad condition as the timber now is mostly all windfall. The line between concessions IV and V is all in green timber, and north of the line none of the timber has been destroyed by fire. The timber consists, in this part of the township, of spruce, balsam, birch and poplar with practically no jack pine. The spruce is most predominant and is from 4 to 16 inches in size, the largest percentage of it being of pulp wood size. Balsam comes next in quantity and runs from 4 to 14 inches in size. The birch and poplar are both fairly abundant and run from 6 to 16 inches.

SOIL.

The soil of the whole township, with the exception of lot 8 in concessions I, II, III and IV, which are very swampy, and a few outcroppings of rock, is a very good clay loam suitable for agriculture.

MINERALS.

There is an outcrop of diabase on a line between lots 10 and 11, concession III, and also on a line between concessions III and IV, on lot 11. Above this line, on the line between lots 10 and 11, concession IV, there is an outcropping of Keewatin schist. There were no other outcroppings south of this and none north with the exception of the peninsula on the northerly end of Night Hawk lake. It would appear that the northerly portion of the township is of Keewatin schist in formation, and the southerly portion of diabase.

LAKES.

The interior lakes of the township of Cody consist of one small lake in lot 7, concession VI, which is very nearly round and about $\frac{1}{4}$ mile across. This appears to be a spring lake as the water is very clear.

Together with this report I am forwarding you the field notes of the township of Cody, a timber plan showing area of the valuable timber, and a plan of the survey.

Trusting that you will find the above plans accurate and suitable,

I have the honour to be, Sir,

, Your obedient servant,

(Signed) T. G. CODE.

The Honourable, the Minister of Lands, Forests and Mines,
Toronto, Ontario.

Appendix No. 26.

SURVEY OF THE TOWN PLOT OF ARMSTRONG, IN THE DISTRICT OF THUNDER BAY.

NORTH BAY, ONTARIO, September 8th, 1916.

SIR,—Herewith we beg to report the completion of the survey of the townsite of Armstrong, on the National Transcontinental Railway, and in the district of Thunder Bay, performed under instructions from your Department bearing date of May 31st, 1916.

The townsite lies in a territory very much broken up with fish-bearing waters, and with a soil of a very sandy character. The agricultural possibilities, therefore, of the surrounding country are not so extensive as at all the other divisional points on this railway in Ontario and east from this point.

The four angles of each lot were all staked, the corner stakes being made three inches or better on the face, and well driven home. On each stake the number of the adjoining lots or streets were marked with black paint. Iron posts were planted at certain block corners as noted on the plan, and these were similarly marked with a cold chisel.

The townsite, being very rolling and with a sandy soil, has, therefore, a very excellent natural drainage. The station buildings, at the present time, empty their raw sewage into the right-of-way ditch, into which also flows the creek that traverses lots 22, 66, 101, 102, 141, 142, and 181.

There are at the present time numerous private buildings on the townsite; these are all shown on the plan and listed in detail on the list of lots.

The field work was commenced on the 13th of August and completed on the 29th of August.

Accompanying this report are a plan of the townsite on a scale of 200 feet to an inch, a list of all lots, together with the customary returns consisting of pay roll, vouchers, etc.

All of which is respectfully submitted.

We have the honour to be, Sir,

Your obedient servants,

(Signed) MCAUSLAN AND ANDERSON.

The Honourable, the Minister of Lands, Forests and Mines,
Toronto, Ontario.

Appendix No. 27.

SURVEY OF PART OF THE TOWNSHIP OF CAVELL, DISTRICT OF SUDBURY.

PETERBOROUGH, ONTARIO, March 22nd, 1916.

SIR,—I have the honour to submit herewith the field notes and plans of the survey of part of the township of Cavell, in the district of Sudbury, performed by me under instructions from your Department dated October 23rd, 1915.

As instructed I commenced the survey at the intersection of the Meridian line run by O.L.S. Stewart in 1891 and the southerly limit of the original right-of-way of the Canadian Pacific Railway. Here I found a mound of small stones, the iron and wooden posts having both disappeared, from this point I retraced O.L.S. Stewart's Meridian to the south-east angle of the township, at which point I found the iron post planted by him in 1891. Having secured a satisfactory observation for azimuth at this point, I ran the front of concession I due west astronomically two miles making lots 1, 2, 3 and 4 each 40 chains in width, and from the points thus established I ran the side lines between lots 2 and 3 and 4 and 5 north astronomically to the north limit of concession IV. The lines for the fronts of concessions II, III, IV and V were run due west astronomically from points established on O.L.S. Stewart's Meridian and the northerly production thereof.

That portion of the township surveyed by me comprises an area of 5,122.24 acres and may be described, as a whole, as gently undulating in character. It has been swept over many times by fire so that with the exception of that in the swamps little of the original timber now remains, the second or present growth being made up, for the most part, of small poplar, birch, alder, willow and some jack pine, now generally known as brulé. I would consider fully sixty per cent. of that portion of the township subdivided by me very fair farming land, being a clay or

sandy clay loam fairly free from stone and from eight to twelve inches in depth resting on a gravel subsoil. This land may now be very easily cleared and I feel quite sure that if its location and accessibility were generally known it would be very quickly taken up and settled upon.

The swamps which make up probably fifteen to twenty per cent. of the total land area present the usual characteristics, in some places soft and peaty, at others of a firmer consistency, especially where found resting on a clay or gravel sub-soil. There are, of course, as is common to nearly all this section of Northern Ontario, low rocky bluffs and ridges, but the proportion of good arable land in this immediate locality I believe to be far above the average found in this section of Ontario.

This tract is well watered by numerous lakes, creeks and ponds all of which contain beautiful clear palatable water. The Canadian Pacific Railway's Trans-continental line crosses the 3rd and 4th concessions, through lots 1, 2, 3 and 4, in this division it is a double track system and neither time nor money seems to have been spared in making the roadbed as nearly perfect as possible.

A good wagon road leading to the Shannon limits on the Spanish river waters extends southerly through the easterly section of township and is well located for the purpose of colonization. There is at present but one settler in that part of the township subdivided by me, viz.: George Boucher, who is settled on the west part of lot 1, in the 3rd concession, he has about seven acres cleared, good comfortable house and outbuildings, has several head of cattle, hogs, hens, etc., and altogether is very happily and comfortably situated.

Considering the adaptability and accessibility of this district for settlement I would respectfully suggest to your Department the advisability of extending this survey and opening up that part of the country for settlement as soon as possible. A round iron post one and one-quarter inches in diameter and three feet long furnished to me by your Department is planted at the intersection of side line between lots 4 and 5 and the line in front of concession V, this post is marked "Con. V" on the north side, "Con. IV" on the south side, "Lot V" on the west side and "Lot IV" on the east side, it has also the name "Cavell" marked on the south-east side. At all other intersections of side lines and concession lines surveyed by me are planted solid iron posts seven-eighths inches square and two feet six inches long. These posts are planted at the exact points where the various concession and side road lines intersect; they are driven within eight inches of the surface of the ground and have the numbers of the lots and concessions marked with a cold chisel on the respective sides thereof.

Fish, game and fur of the usual kind common to this section of the Province are to be found in abundance. Frequent observations for azimuth were taken on Polaris at elongation; also solar observations for latitude, records of which will be found in the notes.

Trusting that this report and the accompanying plans, field notes, etc., of the survey will be found complete and satisfactory to your Department.

I have the honour to be, Sir,

Your obedient servant,

(Signed) J. W. FITZGERALD,

Ontario Land Surveyor.

The Honourable, the Minister of Lands, Forests and Mines,
Toronto, Ontario.

Appendix No. 28.

SURVEY OF PART OF THE TOWNSHIP OF HALL, DISTRICT OF SUDBURY.

PETERBOROUGH, ONT., March 22nd, 1916.

SIR,—I have the honour to submit herewith the field notes and plans of the survey of part of the township of Hall in the district of Sudbury, performed by me under instructions from your Department dated October 23rd, 1915.

I commenced this survey at the north-east angle of the township, from this point I produced O.L.S. Stewart's Meridian line due south astronomically giving concessions VI and V a depth of eighty chains each, and from the points thus established I ran the lines for the fronts of concessions V and VI due west astronomically to the west limit of lot 4. Lots 1, 2, 3, and 4 having been previously laid out by me and given a width of forty chains each; along the north boundary of this township I ran the side lines between lots 2 and 3 and lots 4 and 5 south astronomically to the south limit of concession V.

That portion of the township surveyed by me comprises an area of 2,562 acres. As this township lies immediately south of and is very similar in its general characteristics to the township of Cavell, on which I have just reported very fully, I do not consider it will be necessary to repeat this information.

As will be seen by the plan a very considerable area of this part of the township is covered by the waters of Grassy and Tassie lakes. It will also be noticed that there is a considerable area of drowned land.

A good wagon road leading to the Shannon limits on the Spanish river waters crosses the easterly subdivided part of the township.

A round iron post one and one-quarter inches in diameter and three feet long furnished to me by your Department is planted at the intersection of the line in front of concession V with the side line between lots 4 and 5. This post is marked "Con. V" on the north side, "Con. IV" on the south side, "Lot V" on the west side and "Lot IV" on the east side. It has also the name "Hall" marked on the north-east side. At all other intersections of side lines and concession lines surveyed by me are planted solid iron posts seven-eighths inches square and two feet six inches long. These posts are planted at the exact points where the various concessions and side lines intersect, they are driven within eight inches of the surface of the ground and have numbers of the lots and concessions marked with a cold chisel on the respective sides thereof.

Fish, game and fur of the usual kind common to this section of the Province are to be found in abundance. Frequent observations for azimuth were taken on Polaris at elongation. Also solar observations for latitude, records of which will be found in the notes.

Trusting that this report with the accompanying plans, field notes, etc., of the survey will be found complete and satisfactory to your Department.

I have the honour to be, Sir,

Your obedient servant,

(Signed) J. W. FITZGERALD,

Ontario Land Surveyor.

The Honourable, the Minister of Lands, Forests and Mines,
Toronto, Ontario.

Appendix No. 29.

SURVEY OF PART OF THE TOWNSHIP OF JOFFRE, DISTRICT OF SUDBURY.

PETERBOROUGH, ONTARIO, March 22nd, 1916.

SIR,—I have the honour to submit herewith the field notes and plans of the survey of part of the township of Joffre, in the district of Sudbury, performed by me under instructions from your Department dated October 23rd, 1915.

Having already surveyed parts of the townships of Hall and Carew lying immediately west and north, respectively, of this township, and having made concessions V and VI on the east boundary of Hall eighty chains each in depth, and having made lots 12, 11, 10 and 9 forty chains each in width along the south boundary of Carew, I produced the lines between concessions IV and V and V and VI of the township of Hall due east astronomically to the east limit of lot 9. I also produced the side lines between lots 11 and 12 and 8 and 9 of the township of Carew due south astronomically to the south limit of concession V. That portion of the township surveyed by me comprises an area of 2,558.12 acres.

As this township lies immediately south of and is very similar in its general characteristics to the township of Carew, on which I have just reported very fully, I do not consider it will be necessary to repeat this information.

As will be seen by the plan, this township is considerably cut up by Vernon or Ramsay lake and Turbull creek or Pogamasing river, which enters the lake on lot 9, concession VI.

A good wagon road leading to the Shannon limits on the Spanish river waters crosses the north-west angle of the township.

A round post one and one-quarter inches in diameter and three feet long, furnished to me by your Department, is planted at the intersection of side line between lots 8 and 9 and the line in front of concession V, this post is marked "Con. V" on the north side, "Con. IV" on the south side, "Lot IX" on the west side and "Lot VIII" on the east side. It has also the name "Joffre" marked on the north-west side. At all other intersections of side lines and concession lines surveyed by me are planted solid iron posts seven-eighths inches square and two feet six inches long. These posts are planted at the exact points where the various concession and side road lines intersect; they are driven within eight inches of the surface of the ground and have the numbers of the lots and concessions marked with a cold chisel on the respective sides thereof.

Fish, game and fur of the usual kind common to this section of the Province are to be found in abundance. Frequent observations for azimuth were taken on Polaris at elongation, also solar observations for latitude, records of which will be found in the notes.

Trusting that this report with the accompanying plans, field notes, etc., of the survey will be found complete and satisfactory to your Department.

I have the honour to be, Sir,

Your obedient servant,

(Signed) J. W. FITZGERALD,

Ontario Land Surveyor.

The Honourable, the Minister of Lands, Forests and Mines,
Toronto, Ontario.

Appendix No. 30.

SURVEY OF PART OF THE TOWNSHIP OF CAREW, DISTRICT OF SUDBURY.

PETERBOROUGH, ONT., March 23rd, 1916.

SIR,—I have the honour to submit herewith the field notes and plans of the survey of part of the township of Carew, in the district of Sudbury, performed by me under instructions from your Department dated October, 23rd, 1915.

Commencing at the south-west angle of this township I retraced O.L.S. Stewart's Base Line a distance of two miles east making lots 12, 11, 10 and 9 forty chains each in width, and from the points thus established I ran the side lines between lots 10 and 11 and 8 and 9 due north astronomically to the north limit of concession IV, the lines for the fronts of concessions II, III, IV and V were run due east astronomically from points already fixed by me on O.L.S. Stewart's Meridian.

That portion of the township surveyed by me comprises an area of 5,101.79 acres and may be described as gently rolling or undulating in character. It has been swept over many times by fire so that with the exception of that in the swamps little of the original timber now remains, the second or present growth being made up, for the most part, of small poplar, birch, alder and willow and some jack pine now generally known as *brulé*. I would consider fully sixty per cent. of that portion of the township subdivided by me very fair farming land, being a clay or sandy loam from eight to twelve inches in depth, fairly free from stone and resting on a gravel sub-soil. This land may now be very easily cleared and I feel quite sure that if its location and accessibility were generally known it would be very quickly taken up and settled upon.

The swamps, which make up probably fifteen to twenty per cent. of the total land area, present the usual characteristics, in some places soft and peaty, at others of a firmer consistency, especially where found resting on a clay or gravel sub-soil. There are, of course, as is common to nearly all this section of Northern Ontario, low rocky bluffs and ridges, but the proportion of good arable land in this immediate locality I believe to be far above the average found in this section of Ontario.

Considering the adaptability and accessibility of this district for settlement I would respectfully suggest to your Department the advisability of extending this survey and opening up that part of the country for settlement as soon as possible.

A round iron post one and one-quarter inches in diameter and three feet long furnished to me by your Department, is planted at the intersection of side line between lots 8 and 9 and the line in front of concession V, this post is marked "Con. V" on the north side, "Con. IV" on the south side, "Lot IX" on the west side and "Lot VIII" on the east side. It has also the name "Carew" marked on the south-west side. At all other intersections of side lines and concession lines surveyed by me are planted solid iron posts seven-eighths inches square and two feet six inches long. These posts are planted at the exact points where the various concession and side road lines intersect, they are driven within eight inches of the surface of the ground and have the numbers of the lots and concessions marked with a cold chisel on the respective sides thereof.

The Canadian Pacific Railway's Transcontinental line crosses the first, second and third concessions, through lots 9, 10, 11 and 12. In this division it is a double track system and neither time nor money seems to have been spared in making the roadbed as nearly perfect as possible.

A good wagon road leading to the Shannon limits on the Spanish river waters crosses the south-west corner of the township.

Mr. Shannon, of Bisco, has a clearing of about twenty-seven acres located on lots 11 and 12 in the third concession. There are also two settlers in that part of the township surveyed by me, Nazareth Darby is located in a triangular piece of land on the south-east corner of lot 12, concession 3. He has a house built and five or six acres cleared. Donar Lefonte is located on lot 12, concession 2, he has a house built and has about six acres cleared on this lot.

This tract is well watered by numerous lakes, creeks and ponds, and also by Turnbull creek or Pogamasing river, which flows southerly through the first four concessions of the township. This stream has an average width of thirty to fifty links and an average depth of from two to five feet. It has a fair current and is, I understand, used for the floating of logs and timber.

Fish, game and fur of the usual kind common to this section of the Province are to be found in abundance. Frequent observations for azimuth were taken on Polaris at elongation also solar observations for latitude, records of which will be found in the notes.

Trusting that this report with the accompanying plans, field notes, etc., of the survey will be found complete and satisfactory to your Department.

I have the honour to be, Sir,

Your obedient servant,

(Signed) J. W. FITZGERALD,

Ontario Land Surveyor.

The Honourable, the Minister of Lands, Forests and Mines,
Toronto, Ontario.

Appendix No. 31.

SURVEY OF THE TOWNSHIP OF OWENS, DISTRICT OF TIMISKAMING.

FORT WILLIAM, ONTARIO, January 31st, 1916.

SIR,—I beg to submit the following report on the survey of the township of Owens, in the district of Timiskaming, surveyed by me under instructions dated at Toronto, September 16th, 1915.

I proceeded to McPherson on the Transcontinental Railway, taking with me certain members of my party. I had already arranged with a surveyor then in the north country for a number of men, including a transit man, a chain man and eight axe men with boats, to meet me there, but on arriving found neither men nor boats. I then sent the men I had brought with me into the township to put up camp, etc., whilst I went to Cochrane and other points to secure men. This, of course, caused considerable delay, and did not give me as strong a party as could have been desired. Owing to the phenomenally wet weather

experienced, men were frequently leaving the party and others had to be secured. In the latter part of the season \$3.50 a day and board was asked by axe men and packers and \$3.00 paid, with bonuses.

This township was laid out with a double front on each concession road allowance as run on the ground. The centre lines of concession and side roads were well opened up and blazed. Particular care was taken in the planting of durable and substantial posts, all plainly marked, in accordance with the instructions. For this purpose spruce, cedar or tamarac was used. Iron posts were planted alongside the wooden posts at the points indicated on the projected plan sent me with my instructions. The wooden posts were planted on the lines of survey and on the limits of the road allowances. Bearing trees were taken to these latter posts. In only one case did the front angles of lots come in a river, namely, those between lots 2 and 3, in concessions 4 and 5. In this case the lines were projected north and south and the posts planted one chain from the water's edge, guide posts being planted near the shore.

Although this work was performed late in the season the posts were firmly planted as there was no frost in the ground except a little at some few high spots. In fact rain or sleet fell every day but two during the course of the survey. This made the country extremely wet and the packing and locating of suitable camp sites extremely difficult. Certain check chainages which were required were left to be obtained after the freeze up, but the latter part of December, beneath two and a half feet of snow, the ground was still soft and wet making the work extremely arduous.

The National Transcontinental Railway crosses part of this township in a north-westerly direction. Along this railway I laid out a road allowance one chain in perpendicular width on either side of the same. In planting posts along this right-of-way I adhered to the instructions, as shown on the field notes. Before marking these lots adjoining the railway I wrote to the Department for full information as to the same.

I showed a road allowance of one chain in perpendicular width along each bank of the Kapuskasing river, and a similar road allowance around the lakes met with in the survey, except in the case of one small lake which was not cut by the road allowance. The only other river encountered in this survey was what is known as the Lost river. This river is less than a chain in width for the greater part of its length, is overgrown with alders and willows, rendering it hardly more than a creek; for the greater part of its course in the township it was found impossible to use a canoe on it; this was not traversed.

I made no traverse of the Kapuskasing river, having been instructed to that effect, but careful ties were made to the bearing trees noted at the time of the river traverse by Messrs. Sutcliffe & Neelands.

In my instructions I was told to take observations for azimuth at least once a week to verify the direction of my lines. However, owing to the almost continuous rain before referred to, it was found to be impossible to obtain more than two observations throughout the entire course of the work, these being the only occasions when the sky was sufficiently clear to allow of this being done, although an extra instrument was kept in camp for the purpose. Practically half the township was completed before the first observation was obtained. My concession lines were run off the east limit of the township, the latter line having been run some years before. Great care was taken in starting these lines, trial lines being run for some distance along the east boundary when satisfactory pickets could not

be found thereon. Owing to the lack of observations in the early stages of the work it was difficult to make the usual corrections in the direction of lines, it being impossible to determine which of two converging lines was correct.

TIMBER.

The timber throughout the township is for the greater part spruce, varying in size from 2 to 8 inches, much good for pulpwood, but little good for other purposes. For about a mile on each side of the Kapuskasing river some larger timber was found consisting of spruce, birch, poplar and tamarac, from 10 to 18 inches, with small quantities of cedar near the water. As shown in the notes there are a number of poplar ridges running through the township with poplar from 8 to 12 inches.

SOIL.

The soil is of clay throughout the entire township; this clay is covered with moss sometimes three feet or more in depth. At the time this survey was performed there was a considerable quantity of water throughout the township due to the unusual rains. Due regard has been paid to this fact in the field notes and little mention made of the water, it being realized that this water will not be standing in normal times. It will be understood that several of the smaller creeks shown in my field notes are merely creeks draining off this water, and that these will not exist in normal times. Due attention was paid to this in the notes and care taken not to exaggerate the size of these smaller streams.

MINERALS.

No minerals were met with in the course of the survey, the entire township being of clay formation.

GAME.

The larger game appear to have gone farther back from the railway, but fur-bearing animals, mink, marten, beaver, etc., are plentiful.

There are no roads nor trails throughout this township except along the Kapuskasing river, these having been made by prisoners from the internment camp. All parts of the township are, however, readily accessible, or will be when the standing water mentioned above has run off.

I have endeavoured to follow the instructions to the best of my ability with regard to the running of the lines, the planting of posts, and the compiling of the plan and field notes, and trust that everything, upon inspection, will be found satisfactory.

I have the honour to be, Sir,

Your obedient servant,

(Signed) E. R. BINGHAM,

Ontario Land Surveyor.

The Honourable, the Minister of Lands, Forests and Mines,
Toronto, Ontario.

Appendix No. 32.

Honourable G. H. Ferguson, Minister of Lands, Forests and Mines, Toronto, Ont.:

DEAR SIR,—I beg to hand you herewith detailed statements of “Applications for Loans” received from settlers, and also of loans granted, up to October 31st, 1916, summary of which is as follows:—

LOANS TO SETTLERS NORTHERN AND NORTH-WESTERN ONTARIO.

During the period from August 12th, to October 31st, 1916, the number of applications received was 606, covering an aggregate amount of \$230,800 distributed as under:—

<i>District.</i>	<i>Number.</i>	<i>Amount.</i>
Nipissing	8	\$3,000 00
Temiskaming	375	140,175 00
Sudbury	6	2,800 00
Algoma	17	6,400 00
Thunder Bay	146	57,075 00
Kenora	47	18,400 00
Rainy River	7	2,950 00
Total	606	\$230,800 00

Owing to the conditions existing in the district of Temiskaming during this time every effort was made to grant as much assistance as possible to those desiring loans in that district, and after inspections had been made a total of 121 loans were granted to the amount of \$36,525, as follows:—

<i>Crown Lands Agency.</i>	<i>Number.</i>	<i>Amount.</i>
Halleybury	2	\$500 00
New Liskeard	15	5,225 00
Englehart	19	4,675 00
Matheson	36	14,550 00
Cochrane	49	11,575 00
Total	121	\$36,525 00

Consideration is now being given to all the other districts, and from the number of applications which have been received since the Act has been put into effect, it would appear the settlers generally are desirous of taking advantage of the opportunity presented to secure funds for the further improvement of their farms.

Yours very truly,

F. DANE,

Settlers Loan Commissioner.

Appendix No. 33.

ALGONQUIN PROVINCIAL PARK REPORT, NOV. 1916.

HONOURABLE SIR,—I beg to hand you my report for the fiscal year ending October 31st, 1916.

Our staff has been composed of thirty-two rangers and superintendent, three of whom have been absent all year, having enlisted for overseas service. Ranger Stringer went over early, and is employed with the Forestry Battalion; Major Robinson has been occupied in various ways in recruiting, and is now overseas; Lieut. Callighan is still in Barrie; this leaves a staff of twenty-nine rangers engaged in park work. One of these, Robert Balfour, I regret very much to say, was five months ago stricken with paralysis, and I fear will never be fit for work again. He served faithfully as a ranger for over twenty years.

This has been a most fortunate year so far as forest fires are concerned; we have had several start, but all were put under control quickly, and no damage whatever was done. The fire tank stationed here by the Grand Trunk railway is a great safeguard, as it is always ready and can be taken out by the engine of the nearest train to any point along the line where fire starts. The phone line too has been of great assistance in enabling us to get word quickly and summon help where needed. Perhaps the greatest help has been the cleaning up of the right-of-way, and a distance into the woods on each side. This work, in accordance with your instructions, has been continued, but, I am sorry to say, not so much accomplished as I had hoped, owing to the difficulty in procuring men. Notwithstanding we offered much larger pay than formerly, men could not be had at any wage. We have cleaned about forty miles, on each side of the track, greatly improving the appearance, and being of incalculable value as a fire preventative. This is through the section, where the woods are of most value. There are parts that have been completely burned over. It will take another year to complete this work. The task has been greater than at first would appear, as the road allowance or right-of-way was never logged, and brush cut year after year was allowed to remain where it fell, making a slash and fire trap almost up to the rails. It really represents logging, stumping and burning a strip eighty miles long by one hundred and fifty to two hundred feet wide and in places even more. There is no doubt this work has already been the means of saving a great deal of territory from fire. The cleaning up has been done by hired help under the direction of one of our staff, and the Government team has been used right through. The men are under canvas and move along as the work requires. The Grand Trunk Railway pays half of the entire expense.

The rangers to the north, along the line of the Canadian Northern Railway now completed through the north end of the park, were early in the season supplied with speeders. These have proved of great assistance in enabling them to get quickly to any fire started along the track, and they have been able to give material assistance to the regular fire rangers. I have recently returned from a trip through the north section where I found game of all kinds had very much increased, especially in the new section where previously it had been all trapped out. Beaver were in evidence everywhere and have already begun to dam up the ditches along the new railway. At Brent, located on Cedar lake, the Canadian Northern have made a large clearing and have put in extensive sidings, built large round houses, a turn table, etc., and purpose making this a divisional point. I

found two of their employees here had built houses on the lake shore, thinking so long as they were within the one chain allowance it was permissible. Our ranger at that point forbid them to go on with the work, but they finished the houses. One of the men has since been removed, and has rented his house. I would recommend that the Department make some arrangement with the railway people, whereby they will see that their employees do not build shacks at this and other points along the line within the park boundaries. I think the company should be required to provide proper accomodation for all men in their employ where their line runs through the park. They have built good section houses at all points where required. The worst place will be Brent, where several men will be stationed the year round. It might be well to supply our rangers with printed notices on linen forbidding parties to erect buildings of any kind without the Minister's permission. The question of summer hotels will no doubt come up



Rock cut, Canadian Northern Railway, Algonquin Provincial Park.

during the coming year, and it would almost seem necessary to allow one at Brent as there is no doubt the northern lakes will be very popular owing to the excellent fishing in these waters, but for the present I do not consider it would be at all advisable to grant leases along this line to tourists and others.

I have reported to your Department on the matter of the Indian farm on Manitou lake, which has reverted to the Crown. I think it very important that the Government should retain this lot, but would recommend allowing the old Indian couple who have lived there for nearly fifty years to remain for their life term, making them some compensation for the clearing and buildings. I have visited the point on Couchon lake applied for by the firm of Richie Bros., of Aylmer, Que., for the purpose of erecting a mill to cut their lumber there instead of making the long and expensive drive by water to Aylmer. The country to the north of this point, all burnt for a distance north of the park line, is not far from the piece

of land asked for; at the same time I regret that all the young pine on these limits should find its way to the saw instead of becoming the property of the Crown.

I was much gratified to note the rapidity of growth in the young pine through the Pembroke Lumber Company's limits recently acquired by the Government. A few years hence no one will doubt the wisdom of that purchase. I sincerely hope more of that section will be bought and the fine young growth protected. Nature is doing a great work through these depleted sections, and if only protected, splendid young pine forests will be handed down to the next generation.

We have built five new shelter houses during the past year, all good substantial buildings; two of these are on the west side, one south of the Grand Trunk railway, and one at Big Tea lake. At Kiosh-ko-qui we have built a large frame storehouse and workshop, this being our main point on the new (Canadian Northern) railway. I have also arranged with the railway company to allow us to put in a phone here



Stand of young pine, Petawawa limit, acquired from Pembroke Lumber Company
Algonquin Provincial Park.

and tap their phone line, the only expense being the phone. This will give our men phone connection between North Bay and Pembroke. At Grand lake we have built a good frame shelter; this too is on the line of the Canadian Northern Railway at a station called Achray, giving us good buildings at Coristine, Brent and Achray. A daily train is now being run over this line, a mixed train of freight and passenger between Pembroke and North Bay remaining over night at Brent. There are nine stations in the park.

During the past year we have completed the Government phone line from Painy lake to Kearney, a distance of sixteen miles. At this point we connect with the Bell Telephone Company, and now have a well-equipped line from Whitney to Kearney, sixty-one miles. We hope to get a good revenue from this line in the future. The Bell line at present is overloaded between Orillia and Toronto, and they confine our service, except upon Government business to points between Orillia

and North Bay. This I hope before the tourist season comes on again will be changed; as many of our summer visitors want long distance connection. Last summer we talked with Detroit with perfect satisfaction. The ticking of a watch can be heard from one end of our line to the other, and I consider we have one of the best local lines in the country. We have phones at eleven different points along the sixty-one miles.

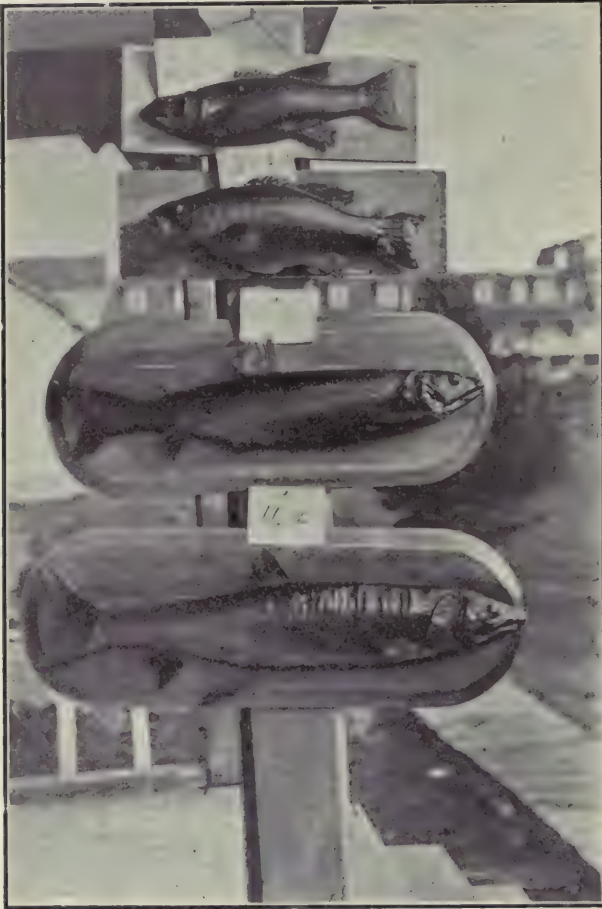
Substantial improvements have been made at headquarters. Cement walks have been built four feet wide to replace the old plank walks; bath rooms and all up-to-date sanitary arrangements have been put in at both houses, and a large septic tank upon the most approved plans has been installed; a cement basement has been put under the kitchen at the superintendent's house, the foundation having rotted, making this necessary. All this work, beside cutting wood, putting in ice, etc., has been done by our own men during times they were not required to patrol their beats, and at a cost of only the actual material used. During the trapping season our men constantly patrol their sections, each two men having a section which they are expected to patrol and keep in good shape with portages, etc., When we build, two sections go together and help one another, thus giving them four men, or six, if required. In this way our men help each other and we hire no other assistance.

Several cottages have been built at Cache lake during the past year, and several leases applied for and granted, the parties paying a \$10.00 survey fee and \$7.50 per year rent on each acre, the maximum being two acres. They get a twenty-one year lease. We have five school camps in the park; these pay an annual rental of \$15.00, and are allowed five acres. They are situated, one at Lake of Two Rivers, two on Cache lake, one on Source lake and one at Joe lake. These camps are a fine thing for the young people who are able to avail themselves of them, building them up in mind and body and filling them with a love of nature that cannot but make nobler men and women of them. The schools are well patronised; the girls in camp on Cache lake under Miss Case numbered sixty odd. We have two hotels and a boarding house; the Highland Inn at Cache lake, Hotel Algonquin at Joe lake, and Mowat Lodge at Canoe lake, besides the two cottage camps in connection with the Highland Inn; one at Big Island lake and one at Smoke lake. These have all been filled to overflowing, and many applicants had to be refused from lack of room.

Our sales of fishing permits were not quite up to last year, although we had a great many more people here. Our young men are away serving the Empire, and our visitors were principally parents and younger members of families who did not fish. Still we sold here fishing licenses to the amount of \$1,037; also guide's licenses \$35, and maps \$10. We collected \$495 in rents. These amounts do not include rents from the Grand Trunk Railway and hotels, which are paid direct to the Department. The fishing has been good, and some fine specimens taken. A quantity of fry and fingerlings has been put into the lakes near the railway by the Fish and Game Department.

Fur-bearing animals of all kinds are increasing rapidly. We had hoped to sell a number of live animals, but the war has destroyed this industry temporarily. We did, however, ship out seven live beaver to points in the United States at \$50 a pair. We are now in shape to handle live animals properly. Ranger J. Bartlett has invented a trap whereby we can take them alive without injury, and we have a splendid animal house, well supplied with water and all necessary equipment to handle them, and I have no doubt after the war a big business will be done in

live animals, for which we get a much better price than for the pelts alone. Furs were taken which were sold to the amount of \$2,322.65. We did not take out a large quantity owing to the state of the market. The annual increase of beaver must now be many thousand; it is therefore evident many can be taken out yearly and still retain a large part of the annual increase. Otter, mink, marten and fisher are also very abundant, while deer are in evidence in large numbers everywhere. The territory all round the park is a favourite hunting ground for several large clubs, and, of course, the deer from the park keep these sections replenished.



Some of last year's catch, Algonquin Provincial Park.

Lumbering in the park during the past year has almost been at a standstill, owing to the difficulty in getting men, and the depression in the market caused by the war.

We have had only a few minor breaches of the law, and I am glad to say conditions in that respect have very much improved. Several guns have been confiscated and sent to Toronto, as required by the park regulations. The Northern Development Branch under your instructions has made a great improvement in the roads from headquarters to Big Island lake, a distance of ten miles,

and Smoke lake, eight miles to the south. At each of these points the Grand Trunk Railway has log cottages and one large general camp. The cottages will accommodate six to eight people, while a number can be put up at the main camp, and all are supplied with meals at the latter. These camps are run in connection with the Highland Inn, and a daily stage runs from here to them. They have bath rooms, open fire places, etc., and the sanitary arrangements are good.

It would be a great boon to our towns and cities if we had a road into the park so that motor parties could run their cars right to this point; they now run as far as Kearney, within thirty miles of the road to Smoke lake and thirty-five miles west of headquarters.

I would recommend taking out a quantity of fur, especially beaver, for next spring's sale. The large increase warrants this, and the price of beaver pelts will no doubt be good, notwithstanding the open season, as the fur is fashionable this year again.

I would recommend putting in more fry and fingerlings again next year, both bass and trout. The lakes along the railway and near the hotels will require constant re-stocking, not only on account of their being fished more, but because, being head waters, they supply the lakes for a long distance down stream. In fact bass fishing is now good the entire length of the Madawaska river, where none were known before the lakes in the park were stocked. As the demand upon the hatcheries is large, I believe it is necessary to apply for fry and fingerlings early in order to secure them.

I have the honour to be, Sir,

You obedient servant,

G. W. BARTLETT,

Superintendent.

Honourable G. Howard Ferguson, Minister of Lands, Forests and Mines,
Toronto, Ont.

Appendix No. 34.

QUETICO PROVINCIAL PARK.

QUETICO PARK HEADQUARTERS, October 31st, 1916.

To the Honourable, the Minister of Lands, Forests and Mines, Toronto, Ontario:—

HONOURABLE SIR,—I beg to hand you my report on the Quetico Provincial Park for the fiscal year ending Oct. 31st, 1916.

At the present time our staff consists of superintendent and nine men. Three of my rangers enlisted during the past year, two of whom are wounded and are now in hospitals in England. I trust that your Department may re-instate some of these men if they are fit for service in the park on their return from the war. Two of them write me occasionally and request to be taken on my staff again if they survive. I would be pleased to have them as they are good men.

We had seven fire-rangers in the park during the fire ranging season, May 1st to Sept. 30th. Three fires occurred in the park last summer. One on a point on Knife lake on the International boundary, which burned about 500 feet in from the water, but did not destroy any timber. It was noticed in time by the park rangers in the vicinity, and extinguished before the timber was damaged. It is supposed that this fire started from a camp fire left unquenched by a party of surveyors on the International boundary survey.

Another fire, started by lightning on Shortiss island on August 2nd, burned the underbrush among the pine trees for about 80 acres, but did not do any great damage to the pine timber. A third fire occurred in July on timber berths 12 and 13 in the vicinity of Long lake, Ann lake and the west end of Quetico lake, which scorched quite a quantity of timber. This fire came in from the north from the direction of the Canadian Northern Railway, where a bad fire occurred during that



Ranger's cabin, Pickerel Lake, Quetico Provincial Park.

time. The Shevlin-Clarke Lumber Co., of Fort Frances, Ont., who hold the berths, are now preparing to cut the timber this winter.

Owing to the war and consequent scarcity of men in this vicinity during last summer it was almost impossible to secure sufficient suitable men to patrol the park properly. Men who would suit on land patrols along railroads and cut-over limits would not do here, as all of our travelling has to be done by canoes, and a man who is not a canoe man is useless in Quetico.

On account of scarcity of labour last season I had to abandon work on the wagon road from Eva lake to Kawene station, over which we have to haul our feed, provisions and other supplies. I hope next season to be able to put this road in good condition as during summer it is almost impassable.

On April 21st last we had a very heavy fall of snow, nine inches, which broke down many balsam and jack pine trees and blocked up our roads and portages all of which had to be cut out again. Snowshoeing last winter was the worst yet

experienced in this country. The rivers did not freeze over until well on in January. The lakes, owing to the heavy weight of snow were full of air-holes and covered with slush until March. The ice was very unsafe for travelling. I had my team in through the ice on three different occasions.

The high water in the spring washed out many of our portages and bridges, also many of our small landing docks.

We improved some of our shelter huts last summer, built one on an island in Agnes lake, and one at Prairie portage on the boundary. Many of the old portages were cleaned out and some new ones cut.

I consider it advisable to build several look-out towers next summer, say from thirty to forty feet in height, which could be done at small cost. This is a flat country and observations cannot be had for any distance from the hills.

I would suggest that a telephone line be erected from headquarters here to Kawene station on the Canadian Northern Railway. This would save much valuable time, as, for instance, a telegram sent me by one of my rangers stationed at Basswood lake, from Winton, Minnesota, in reference to a fire along the boundary



Moose in Sturgeon Lake, Quetico Provincial Park.

lay at Kawene for two days before I received it. No one from here happened to be out, and there is no way of getting from Kawene in here with a message. The line could be built around Eva lake a distance of twelve miles. Two hundred metal boundary signs were sent me by your Department in June last. Many of these were placed at portages and along canoe routes along the different boundaries. The balance of the signs will be placed next season.

The Canadian and United States Boundary Survey parties placed iron monuments at many points along the International boundary during the summer, which will be of great assistance to us in determining the boundary which, previous to this, was a very difficult matter. It is expected that the survey work along the park waters will be completed next year.

Game, especially moose and red deer are still numerous; very many were seen during the summer. Beaver are increasing very rapidly; in some places we will have to cut new portages owing to the flooding of the ones now used along streams and lakes where the beaver have built dams. Fisher are very plentiful, also foxes, but mink are very scarce. Quite a few otter were noticed this season.

Wolves are still numerous, quite a few were poisoned last winter, but owing to the frequent heavy snow falls many were lost. I found several when the snow went off in the spring. Owing to the difficulty in procuring bait it is not an easy matter to get them. Last winter we were fortunate to find some carcasses of moose killed by wolves in which we placed poison. I am pleased to know that a bounty is now paid for the killing of the smaller wolf, as he destroys much game.

The restriction placed on hunting of partridge is a good idea, and will give them a chance to increase as they are almost extinct here now. There are scarcely any rabbits in the park or surrounding woods this season.



Trout caught in Pickerel Lake, Quetico
Provincial Park.

A few flocks of ducks were seen in the lakes en route to the south. As there is no feed in these lakes for them they do not remain. We did not notice any signs of trapping or hunting in the park last winter. The Indians on the reserve at Lac La Croix do not come into the park as they used to. Some pass through on their way to Lac Mille Lac and other places, but apparently observe the regulations.

There were not so many tourists in the park as in 1915. The early part of the season was cold and wet and later on the flies were bad, which prevented many from taking their usual canoe trip. Many of them intend returning next year, as they are delighted with the canoe trips through Quetico.

At present we are engaged at headquarters in getting out fire wood for the

winter, and in fixing up the buildings. I had to get in some lumber and put a new roof on our stable and hay shed, the old roof was broken up during a wind and hail storm in August last.

On Oct. 16th the first snow fell and since that time we have had several snow falls. The snow is now fourteen inches deep, but as there is no frost in the ground I expect much of it will melt away.

I trust we may have a better season for travelling on the lakes and rivers than we had last winter.

I have the honour to be, Sir,

Your obedient servant,

A. J. McDONALD,

Superintendent.

Appendix No. 35.

COLONIZATION AND IMMIGRATION.

The following table shows the record of the work of this branch for the year ending October 31st, 1916, as far as it can be shown by statistics:—

Number of American farm labourers placed by Bureau of Colonization	600
Northern Ontario calendars circulated	50,000
Northern Ontario hangers: "A New Land Nearby," circulated	3,000
Northern Ontario booklet: "A New Land Nearby," circulated	20,000
"Ontario" handbook, circulated	5,000
Hangers: "Ontario, the Land of Opportunities," circulated	1,000
"Opportunities in Ontario" (Heaton's), circulated	20,000
"Farming Opportunities in Ontario" (Farm Property Values), circulated	11,000
Railway certificates to settlers going to Northern Ontario	1,224

Since the war commenced the only available country to canvass for emigrants therefrom is the United States. Farm labour being at a premium in our Province, it was unanimously decided at a conference in the office of the Minister of Agriculture held on February 24th, 1916, to send a number of agents to that country. These agents were instructed to be very careful in their selection of applicants and consequently the number secured was small in comparison with the numbers that applied. Out of about 3,000 applicants 600 were selected and placed on farms, where most of them gave general satisfaction. Many men interviewed were undesirable or of enemy origin. On the other hand, we experienced great difficulty in convincing favourable applicants that Canada was not under military conscription. The antagonism our mission met was due to misleading reports in certain American papers, to people that made it their business to dissuade intending settlers, to ignorance, to the enemy element, and to maliciousness on the part of rejected applicants. We are confident, however, that this difficulty will be overcome by the influence of men that have fulfilled their engagements with our farmers and that intend to return in the early spring, and by other men that have written favourable letters home, thereby inducing some of their friends and relatives to come. Another difficulty met, of a peculiar but not uncomplimentary character, was the voluntary enlistment of quite a number of our immigrants. Our antago-



Temiskaming
District Exhibit,
Canadian
National Exhibi-
tion, Toronto,
1916.

Kenora and
Rainy River Dis-
tricts Exhibit,
Canadian
National Exhibi-
tion, Toronto,
1916.



Thunder Bay
District Exhibit,
Canadian
National Exhibi-
tion, Toronto,
1916.

nists may, therefore, well reflect that a country worth fighting and dying for is one in which it is worth while to live and work.

The applications we had on hand from our Ontario farmers for farm hands called for from 7 to 12 months engagements, and we had no difficulty in getting the farmers to pay the amount we had to guarantee, namely, \$35.00 per month, with lodging, board and washing.

While our agents were in the United States they were also very active in advertising the opportunities in Northern Ontario. Apropos of that country's attractiveness is a comment on the report of its staff correspondent regarding "the spirit manifested by the sufferers from the late fire in the district north of Lake Timiskaming," by a leading newspaper:—

"The reader cannot fail to be deeply impressed by the invincible courage and 'buoyant optimism' of those settlers who have manifested and proclaimed their determination to stick to their burnt-over farms in spite of pecuniary losses and still more depressing calamities. There must be something inherently and enduringly attractive in a locality which has the magnetic power to counteract the



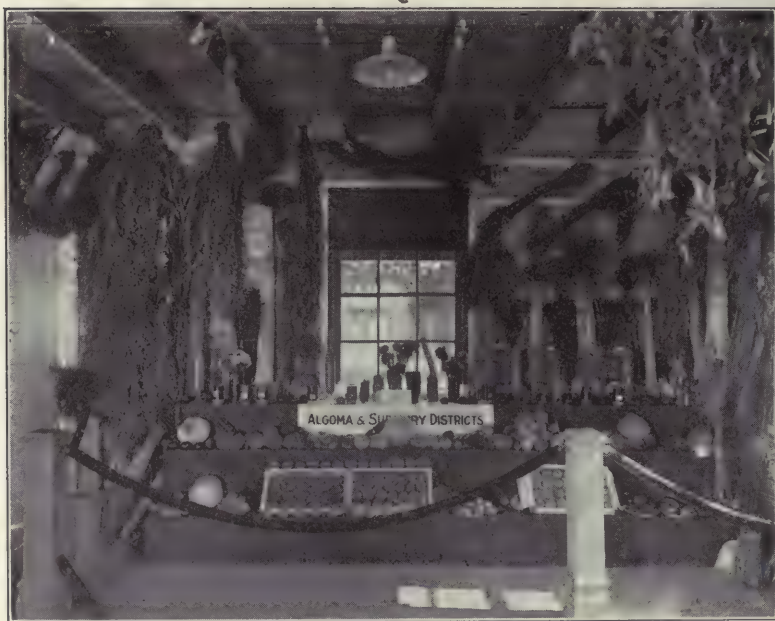
Interior Immigration Office, opposite Union Station, Toronto.

repelling force of such a disaster as they have passed through. 'Troubled, but not distressed, perplexed but not in despair, cast down but not destroyed,' they turn to the future with an unwavering faith in the resources of the soil and in their own ability to utilize them. 'The land is still there, and it is wonderful in its richness,' so wonderful that nothing short of actual contact with it can convey to the observer an adequate idea of the real truth.

"The secret of this 'richness' is not far to seek: It is in the fact that the soil is a calcareous alluvial clay. The infused lime seems to be of just the right amount and quality to make the clay friable, so that, unlike the old-fashioned clay of southern Ontario, it does not 'cake' into bricks. Laid bare to the sun from several feet below the surface it will become pulverized instead of being hardened into 'adobes,' so that there is no 'sub-soil' in the ordinary sense of that term. This peculiarity is so pronounced that it is hard in some places to keep up the open drains on the highways. The deep, fertile soil of the western prairie offers no agricultural advantage over the deep, fertile soil of the Northern Ontario forest, where the timber may be made to pay partially if not wholly for the clearing."



Immigration Office, opposite Union Station, Toronto.



Algoma and Sudbury Districts Exhibit, Canadian National Exhibition, Toronto, 1916.

After the Canadian National Exhibition closed we established in our Immigration Office, 172 Front St. West, Toronto, a permanent exhibit, small but representative of the field crops of Northern Ontario. The richness of the soil is emphasized by a collection of samples of fodder crops, such as clover, alfalfa and alsike, and by a number of native grasses (also good for fodder) that grow in profusion in the majority of the districts. These fodders and sheaves of fall wheat and oats with large heads and straw five feet in length, give manifest proof that Northern Ontario will not yield to any other part of Canada the first place in field crop production. The exhibit was well advertised and was the means of interesting hundreds of people regarding Northern Ontario. They seemed astonished at the grain and vegetables the country produced and at the natural resources with which it abounded. Here, at our own door of Ontario, they remarked, is a wonderful country, rich in land, timber and minerals, and where clover almost everywhere grows as a weed, and all that advantage to be freely had at the low price of fifty cents an acre.

Perhaps few people are aware that in this city the Government maintains an institution that is something more than a turnstile through which settlers pass to



Log Cabin, Canadian National Exhibition.

their new heritage. The reception room is comfortable, with proper facilities to accommodate women and children, and it is also a school where many things are taught to the profit of citizen and settler.

EXHIBIT AT THE CANADIAN NATIONAL EXHIBITION.

The Northern Ontario Settler's Home at the Exhibition this year, with exhibits from Timiskaming, Nipissing, Sudbury, Algoma, Thunder Bay, Rainy River and Kenora, in charge of the District Representatives and their assistants and also a representative from the Bureau of Colonization, was perhaps one of the most attractive features of the big show. A log house or bungalow may often be seen in Northern Ontario as well built as this one was. The heavy timbers were dovetailed together by an art almost unknown in the older parts of the Province, and its choice for the display of products, tastefully arranged from an agricultural standpoint, was as appropriate as it was effective. The logs were labeled, and some spruce logs gave an idea of the wood so much used for paper-making and certain classes of building. Thousands of people elbowed their way into this little log house from all parts of Canada and the United States but, of course, chiefly from our own Province. They evinced intense interest in the exhibits, and marvelled at the wonderful quality of grains and vegetables and at the country's enormous yield. Every visitor was presented with a pamphlet on Northern Ontario and with those that registered we are arranging correspondence that their interest may not be



lost. And we hope thereby to induce a good number to make their permanent home in the North.

ONTARIO GOVERNMENT EMIGRATION OFFICE, LONDON, ENGLAND.

The cut opposite shows the Ontario Government Emigration Office, which was built in 1911. The main object of this office in the Old Country is to advertise the agricultural resources of the Province and to encourage the emigration of farm hands and domestic servants.

For the past two years, or ever since the war started, their energies have been almost entirely devoted to doing what they could to assist our soldiers who have gone overseas, such as visiting the wounded, and to securing passports and vouching for Ontario people who require permits to enable them to travel in restricted areas.

H. A. MACDONELL,

Oct. 31st, 1916. *Director of Colonization.*

Appendix No. 36.

REPORT ON THE CONSTRUCTION OF ROADS AND BRIDGES, THE CLEARING OF LAND AND OPERATION OF EXPERIMENTAL FARM AND GARDEN PLOTS, AND THE DISTRIBUTION OF SEED GRAIN, UNDER THE PROVISIONS OF THE NORTHERN AND NORTH-WESTERN ONTARIO DEVELOPMENT ACTS, 1912 AND 1915.

(During the Season of 1916.)

To the Honourable, the Minister of Lands, Forests and Mines:—

SIR,—I have the honour to submit a general report of the work done in the construction of roads and bridges, the clearing of land, the operation of Experimental Farm and Garden Plots, and the distribution of seed grain, under the provisions of the Northern and North-western Ontario Development Acts, 1912 and 1915, during the season of 1916.

The season's work on the construction of roads and bridges was continued throughout the winter of 1915-16, in re-surfacing roads with gravel, constructing bridges and taking out bridge timber.

In compliance with the Act passed at the Session of 1915, authorizing the distribution of seed grain and other seeds to settlers, it was found that in certain sections where the crops had been a failure in 1915 that unless the settlers were provided with seed grain they would be unable to purchase the same and would have been in a destitute condition this winter. The amount of seed granted to each settler on unpatented lands was limited to approximately \$25.00. Oats, potatoes and grass seed were purchased and distributed to the amount of 14,566 bushels to 1,097 settlers. The seed was forwarded to them to the nearest railway station at actual cost, the amount being placed as a lien against their lot, re-payable the 1st of December at six per cent. interest. Few, if any, complaints have been received from the applicants and general satisfaction has resulted.

With reference to the construction of roads and bridges, the season of 1916 has not been entirely satisfactory; snow fell to a great depth during the winter of 1915-16, from four to five feet in many sections of Northern Ontario. Heavy rains fell during the early part of April, and the winter broke up very suddenly,

resulting in high water and floods on many of the streams. Many of the lumbermen's dams constructed for driving purposes broke away and as a result carried out many of the bridges constructed on the trunk and colonization roads. The freshets had also the effect of washing out newly constructed roads and culverts, which had to be re-constructed at a considerable cost. Heavy rains fell during the early part of May and delayed road construction work considerably. In the latter part of July and fore part of August extensive forest fires swept over parts of the district of Temiskaming, destroying many miles of corduroy road, culverts and small bridges. The re-construction and repairing of these roads, culverts and bridges has materially reduced the mileage of new roads constructed this season.

Owing to a great number of our best settlers having enlisted, it was difficult to get sufficient labor to carry on the work in certain sections. Labor and supplies were also higher than in previous years and for this reason several roads which it was the intention of the Department to construct, have not yet been touched. Good progress, however, was made during the dry season and first-class results obtained from the amount expended.

Operations were carried on over practically the same territory as in previous years,—from near Petawawa in the east to Kenora in the west; in the Rainy river valley; along the Sault Ste. Marie branch of the Canadian Pacific railway from Sudbury west; along the Canadian Pacific railway from Sudbury east; in the Port Arthur and Fort William districts; in the Wabigoon district between Dryden and the Transcontinental railway; along the Canadian Pacific railway between North Bay and Sudbury; south along the Grand Trunk railway as far as South River; in the Algonquin Provincial park; along the Temiskaming & Northern Ontario railway and the Transcontinental railway as far west as Hearst; and in all the different mining sections.

Settlers or residents of a district only were employed, except in the construction of ditches or on rock work. The largest number of men employed was during the months of July, August and September, when the average number employed at day's labor was 2,300, and on contract work about 500, or about 2,800 in all.

During the season up to the 31st of October, the sum of \$513,533.75 was expended in the construction of roads and bridges, in the clearing of farm lands on both sides of the Grand Trunk Pacific railway east and west of the Kapuskasing river, and the construction of store-houses at the headquarters at Cochrane and Matheson, destroyed in the fires of July last; \$10,125.53 was expended in the clearing and operation of farm and garden plots, and the purchase of thorough-bred stock; \$24,916.63 was expended in supplying seed oats, potatoes and grass seed to 1,097 settlers; \$6,630.00 was expended in the purchase of grass seed to be distributed amongst settlers who were burned out in the country between New Liskeard and Cochrane, on the Temiskaming & Northern Ontario railway, and between Cochrane and Hearst, on the Grand Trunk Pacific railway. Of this amount 25,819 pounds have already been distributed to 414 settlers, the balance to be distributed early this spring. The distribution of this grass seed will be of very great benefit to the settlers; much of the land burned over last July and August was left almost ready for the plow. The seeding of this down in grass seed will give to the settlers in the future an abundance of pasture lands and a supply of hay and clover for their stock.

Approximately 500 miles of road, new and old, was worked over during the season, of which 180 miles is entirely new road, the balance being roads cut out in previous years, or roads re-graded and surfaced and old roads partially improved; 18 miles of road was re-surfaced with stone and 83 miles with gravel; 50 bridges,

small and large, were constructed, and 350 iron culverts placed and several hundred wooden. Many of the old roads built in previous years were gone over and repaired with the small grader or road drag. After the destructive fire of July and August, in the Temiskaming district, which burned out many of the culverts and small bridges, work was immediately started repairing the most important roads and renewing the culverts and bridges. In that district this occupied the greater portion of September and October.

The Experimental Farm and Plots were operated this season in continuance of the work started two years ago,—the garden plot in Cochrane and the farm plot two miles west thereof; the garden plot and farm at the Ground Hog river, 50 miles west of Cochrane; the garden plot at Hearst, 130 miles west of Cochrane; one at the Kapuskasing river, 70 miles west of Cochrane; and one at the Nagagami river, 170 miles west of Cochrane. The results from all of these farms and garden plots were as in previous years entirely satisfactory. Clover, alfalfa and timothy grew in great abundance on all the different farms, and in fact was a first-class crop throughout the whole of Northern Ontario. Two crops of clover were grown in many instances, netting over three tons per acre, the average of the first crop of timothy or clover being from two to two and one-half tons per acre. Fall wheat did exceptionally well where tested and averaged from 25 to 45 bushels per acre. It was not injured in any way by the summer frosts. Up to the present only small areas have been sown. From the results of our experiments and very careful examination of different fields grown by private individuals, it would appear that fall wheat will be produced profitably in these Northern districts. Spring wheat on the different farms and throughout the district was a fairly good crop; that sown early or about the 1st of May on fall plowed land did not appear to have been injured by the early frosts. Oats, peas, barley, rye and nearly all the different kinds of vegetables matured in the clay belt along the Grand Trunk Pacific railway and the Temiskaming & Northern Ontario railway. Little damage was done by summer frosts where the crops were planted reasonably early. I have noticed an improvement in the climatic conditions of the country each year during the last five years where settlement has taken place and the land cleared up. Crops did not suffer as much during the dry season in July and August in the clay lands in the district of Temiskaming as they did in the older parts of Ontario, or in the western districts, where the soil is not the rich clay or clay loam met with in the district of Temiskaming. Pasture was abundant throughout the entire season; even in the dry hot weather in July and the early part of August it did not suffer materially. Few finer crops were seen in Old Ontario than those grown in the clay belt last season. The extremely dry weather in July and August materially reduced the grain crops.

A settler's model house was erected on the Toronto Exhibition Grounds, from timber taken from Night Hawk and Frederickhouse lakes on the Frederickhouse river.

A very destructive forest fire swept over parts of Temiskaming district, resulting in a very great loss of life. Many of the settlers between Matheson and Cochrane lost all their belongings, buildings, farm stock and implements and crops. In point of lives lost in this fire, it is one of the most disastrous forest fires in the history of the Province. From an agricultural standpoint, in clearing up the lands and in improving the climatic conditions, good results will follow as it has done for many of the settlers more in clearing off their lands than they could accomplish in many years. I am glad to report that having travelled over the burnt over district after the fire, that the area burnt over and the loss of timber is not nearly

so great as was originally reported, and that this fire does not compare, in point of area burned and timber destroyed, with many of the earlier fires in the Province. This fire is more particularly described in the general report hereto attached.

The good results obtained from the different farm and garden plots and from the farms in general along the Grand Trunk Pacific railway and along the Temiskaming & Northern Ontario railway and its branches, has given to the settlers great encouragement this season, and has removed any doubt as to the future of this new district. All that is now lacking are settlers.

Good progress is still being made in the valley of the Rainy River, where there is still a considerable area of first-class lands waiting settlement.

The different mining camps now operating in the new districts are giving a ready market for all the grain and vegetables the farmers can produce.

The demand for new roads and more roads still continues.

Attached hereto are statements of expenditures for the year ending 31st October, 1916, in the various districts, and a summary of expenditure for the last five years.

I have the honour to be, Sir,

Your obedient servant,

J. F. WHITSON,

Commissioner.

STATEMENT OF EXPENDITURE UNDER NORTHERN & NORTHWESTERN ONTARIO DEVELOPMENT ACTS, 1912, 1915 AND 1916.

(From 23rd May, 1912 to 31st October, 1916.)

District.	Expenditure to 31st October, 1915.	Expenditure year ending 31st October, 1916.
District of Nipissing, North Bay to Mattawa, and east to Petawawa Military Camp, and south of Callander to South River, and west from North Bay through Sturgeon Falls	\$270,244 73	\$53,938 91
District of Temiskaming, Halleybury, Englehart, Matheson, Charlton, Swastika, Elk Lake, Larder Lake	395,871 16	92,116 78
District of Temiskaming, Cochrane, Porcupine, Iroquois Falls, and Transcontinental Railway from Quebec boundary west 125 miles to Groundhog	685,426 32	95,442 03
District of Sudbury, vicinity of the Town of Sudbury and Mining District surrounding	189,906 37	44,827 59
District of Algoma, vicinity of Hearst, along Transcontinental and Algoma Central Railways	84,314 32	18,041 31
District of Algoma, on Sudbury and Sault Ste. Marie Trunk Road	190,726 36	40,040 15
District of Thunder Bay, tributary to Port Arthur and Fort William	354,475 14	62,338 65
District of Kenora, vicinity of Kenora and Keewatin and Wabigoon	147,802 84	21,277 43
District of Rainy River, in Rainy River Valley	281,938 38	45,893 78
Algonquin Provincial Park		14,391 27
Manitoulin Island		9,269 30
Experimental Farm Plots	17,110 79	10,125 53

Seed Grain	98,920 26	24,916 63
General Administration Expenses	50,007 34	15,956 55
	<hr/>	<hr/>
Settlers' Loan Account	\$2,766,744 01	\$548,575 91
	<hr/>	<hr/>
	\$2,766,744 01	\$574,946 89

ARTHUR E. D. BRUCE,
Secretary and Accountant.

STATEMENT OF EXPENDITURE, YEAR ENDING 31ST OCTOBER, 1916.

The Making of Roads:

Grigg, A., Deputy Minister, salary	\$75 63	
Whitson, J. F., Commissioner, salary	4,500 00	
Bruce, A. E. D., Secretary and Accountant, salary	2,791 00	
Beardall, F. G., Clerk (on active service) salary	1,605 18	
Dower, A. R., Clerk (on active service) salary	1,200 00	
Reid, A., Clerk (on active service) salary	916 33	
Extra Clerks	4,868 41	
	<hr/>	\$15,956 55
Wages	\$296,042 54	
Contracts	49,525 28	
Supplies and equipment	152,009 38	
	<hr/>	497,577 20

Advancement of Settlement and Colonization:

Wages	\$6,064 42	
Supplies, stock and equipment	4,061 11	
	<hr/>	10,125 53

Seed Grain:

Wages	666 32	
Seed grain, freight and expenses	24,250 31	24,916 63
	<hr/>	<hr/>
		\$548,575 91

Settlers Loan Department:

Dane, F., Commissioner, salary	\$1,105 75	
Kennedy, W. K. P., Accountant, salary	552 88	
Crawford, G., Stenographer, salary	128 00	
Chester, Thos., Supervisor, salary	104 00	
	<hr/>	\$1,890 63
Net amount of loans issued	\$23,889 69	
Expenses	590 66	
	<hr/>	24,480 35
		<hr/>
		\$26,370 98
		<hr/>
		\$574,946 89

ARTHUR E. D. BRUCE,
Secretary and Accountant.

SUMMARY OF EXPENDITURE FOR THE FIVE YEARS ENDING 31ST OCTOBER, 1916.

Description.	Year ending 31st Oct., 1912.	Year ending 31st Oct., 1913.	Year ending 31st Oct., 1914.	Year ending 31st Oct., 1915.	Year ending 31st Oct., 1916.	Total Expenditure under each section.
Sec. 1 (a). Works and Improvements (Sewer at Hearst)	\$ c.	\$ c.	\$ c. 2,100 00	\$ c.	\$ c.	\$ c. 2,100 00
Sec. 1 (b). Roads ..	193,082 80	1,081,172 28	791,443 08	582,914 80	513,533 75	3,162,146 71
Sec. 1 (d). Farms .....	.....	.....	9,035 11	8,075 68	10,125 53	27,236 32
Seed Grain .....	.....	.....	.....	98,920 26	24,916 63	123,836 89
Clause 1 (Amending Act-1916) Settlers Loan Account	193,082 80	1,081,172 28	802,578 19	689,910 74	548,575 91	3,315,319 92
Total Expenditure under all sections ..	193,082 80	1,081,172 28	802,578 19	689,910 74	26,370 98	26,370 98
					574,946 89	3,341,690 90

ARTHUR E. D. BRUCE,

Secretary and Accountant.

NORTHERN DEVELOPMENT BRANCH.

SEED GRAIN.

Summary of Seed Grain supplied to Settlers, Year ending the 31st October, 1916.

Distribution Store.	District.	Oats.	Potatoes.	Clover.	Timothy.	No. Settlers Supplied
		Bush.	Bush.	Lbs.	Lbs.	
Kenora	Kenora.....	61½	25	55	5	
Dryden	"	814½	950	750	90	
Port Arthur.....	Thunder Bay.....	627	1,275	1,300	76	
Emo.....	Rainy River.....	1,234½	1,070	1,370	148	
Sudbury.....	Sudbury	5,910	567	5,860	8,975	333
North Bay	Nipissing.....	33	10½	40	50	4
New Liskeard	Temiskaming....	216	130½	615	445	37
Englehart	"	510	223½	390	740	65
Matheson.....	"	1,020	651	1,595	1,945	147
Cochrane	"	1,164	778½	1,635	3,140	192
		8,853	5,098½	13,455 or 22¼ ¹⁵ / ₃₀ bush.	18,770 or 391 ⁸ / ₁₈ bush.	1,097

ARTHUR E. D. BRUCE,
Secretary and Accountant.

NORTHERN DEVELOPMENT BRANCH.

SEED GRAIN.

Amount refunded by Settlers for Seed Grain supplied.

October 31st, 1915, By notes retired and Cash paid.....	\$3,171	36
“ 31st, 1916, “ “	29,320	00
Total paid to Prov. Treasurer, Refund Account.....	\$32,491	36

ARTHUR E. D. BRUCE,
Secretary and Accountant.

RECORD OF CORRESPONDENCE.

For Year Ended 31st October, 1916.

Letters received	7,772
Letters and circulars mailed	16,349

ARTHUR E. D. BRUCE,
Secretary and Accountant.

DISTRICT OF KENORA.

New roads cut out and graded	21 miles
Old roads graded	11 miles
Old roads repaired	15 miles
Old roads gravelled	6 miles
Bridges constructed	23
Total number of miles under partial construction	53

In the District of Keewatin the work was continued throughout the season, beginning on the 1st of June to the last of October. The work was performed chiefly in the Agricultural sections north of Wabigoon and Dryden on the Canadian Pacific Railway, and extended northerly to the Grand Trunk Pacific Railway, in a section of the country which has been partially settled for several years, where the country is fairly good agricultural land—clay or clay loam. A few short roads were constructed or repaired north and north-west of Kenora in the sparsely settled townships.

In the District of Keewatin, as in other northern districts, the freshet and high water in April last damaged several of the old roads and bridges which had to be renewed or repaired. Labour was scarce and expensive, as well as provisions. Good results, however, were obtained by the money expended notwithstanding these difficulties. The work this season was done where it gave immediate results. Short roads were constructed or repaired in settlements where heretofore the school children had been unable to reach a school, and while there are still many instances where roads for schools are sadly in need, the greatest possible consideration has been given to such roads, considering the broken character of the country and the numerous small scattered settlements in the district.

ROADS IN THE DISTRICT OF RAINY RIVER.

Roads worked on 56 miles.

Number of miles of new road cut out only	3¾
Number of miles of new road grubbed only	¾
Number of miles of new road cut, grubbed and graded	10
Number of miles of new road cut and grubbed	1¾
Number of miles of new road grubbed and graded	7¼
Number of miles of corduroy laid	1¼
Number of miles of new road graded only	1¼
Number of miles of old road regraded	13¾
Number of miles of old road gravelled	20½
Number of miles of tap drain put in	1½
Number of bridges constructed	8
Number of culverts built	22
Number of miles of road dragged	75

The main roads worked on were, first, a road from the Town of Rainy River north to the Lake of the Woods. The road is now in such shape as to allow the settlers to drive to the Town of Rainy River during the summer months. Previous to this road being completed the settlers in the Township of Spohn were required to secure supplies in the summer season by boat and pack them to their homesteads. The land along this road through the Wild Lands Reserve has all recently been sold by the Department of Indian Affairs. The influx of settlers on these lands will greatly benefit the Town of Rainy River.

The gravelling of the trunk road from Rainy River Town to Fort Frances has been completed and where required, regravelled, giving the settlers 62 miles of continuous good gravelled road.

The main road north of Barwick has been gravelled this season a distance of 6 miles. The settlers now have 11 miles of gravelled road north of the Canadian Northern Railway.

North of Emo, 4 miles of the Carpenter and Dobie townline was gravelled. This is the main road leading north of Emo and it is desirable that the gravelling be continued on it further north through the settlement.

The old Colonization road between Little Forks and Fort Frances was graded for a distance of 7 miles and tap drains were dug where required; also, a mile and a half of this road was gravelled through the Indian Reserve. The remainder of this road requires gravelling as the traffic is very heavy.

The other roads worked on were short roads needed badly by the settlers.

The distribution of seed potatoes and grass seeds gave good results, as both the hay and potato crops throughout the district gave a good yield. The wheat and oat crop was very light.

ROADS IN THE DISTRICTS OF PORT ARTHUR AND FORT WILLIAM.

Number of miles of new road cut out and graded	27
Number of miles of old road regraded	14
Number of miles of old and new roads gravelled	17
Number of culverts constructed	215
Number of bridges constructed	5

Township of MacGregor:

North-east Branch Road—

This road was regraded and gravelled for 1½ miles and was continued through Lot 16, Concessions 2 and 3, a distance of 1¼ miles. The road was grubbed out, ditched, one-quarter mile stone and corduroy foundation laid, 32 culverts set, one bridge, on rock-filled cribs, of 22 foot span and with two approaches of 25 feet each, was erected over the Current River; the whole was graded and gravelled. This road is completed as far as present settlement warrants.

Township of Gorham:

Road between Lots 10 and 11:

This road was continued through Concessions 2, 3 and part of 4 to the valley of the Current River near Hazelwood Lake, a distance of 1½ miles. The road was cleared, grubbed, ditched, ½ mile stone and corduroy foundation laid, 14 culverts set, and the whole was graded and gravelled. This road is now completed through the very rough ground that isolated the settlers in the Current River Valley and also affords access to Hazelwood Lake, a source of water supply of the City of Port Arthur.



A view along the Port Arthur, Fort William and Duluth Highway.

*Townships of Gorham and Ware:**Town Line—*

This road was continued through Concessions 5 and 6 to the area of level lands surrounding Trout Lake, a distance of 2 miles. The road was cleared, grubbed, ditched, $\frac{3}{4}$ of a mile of corduroy foundation laid, 7 culverts set, 1 bridge erected; the whole was graded and $1\frac{1}{2}$ miles were gravelled. The road is now completed as far as settlement warrants.

*Township of Ware:**Road between Lots 10 and 11—*

One mile of this road regraded and the road was continued 3 miles through Concessions 2, 3 and 4, and a branch road built between Concessions 3 and 4 to connect with roads west of Strawberry Creek and afford settlers there access to the Dawson Road. This road was cleared, grubbed, ditched, $\frac{1}{2}$ mile of corduroy foundation laid, 27 culverts set, the whole graded and $\frac{1}{4}$ mile of low-lying ground was gravelled. This road is completed as far as present settlement warrants.

*Township of Paipoonge:**Arthur Street Road—*

This road was gravelled and rolled by steam roller through Lots 1 to 10, and through Lots 14 to 24, in all a distance of $5\frac{1}{4}$ miles. This work was done early in the season; the increase in traffic induced has proved heavy for the sandy soiled roadbed through Lots 24 and 34 and this still requires re-surfacing with gravel.

*Township of Conmee:**Blind Line Road, Concession 1—*

This road commences at the bridge erected by this Branch across the Kaminstiquia River at Kakabeka Falls, and runs north along the river bank to the "blind line" in Concession 1, thence west along that line. One and one-half miles of new road was cut out, grubbed, ditched and graded, 6 culverts set and $1\frac{1}{4}$ miles were gravelled. The road is completed to Lot 4, and requires to be continued to Lot 7, a distance of 2 miles.

*Township of O'Connor:**Road between Concessions 6 and 7—*

This road also commences at the above-mentioned bridge and runs west; and is completed as far as Lot 7. Two and one-quarter miles of this was grubbed, ditched and graded, 10 culverts were set and 1 bridge on piles erected. The road requires to be continued for 2 miles to accommodate settlers now there.

*Township of Lybster:**Silver Mountain Road—*

This road runs through Lots 5 to 10, in Concessions 4 and 5. Two and one-half miles of this road was regraded and the road continued, cleared, grubbed and ditched for $1\frac{1}{2}$ miles further, 13 culverts set and $\frac{1}{4}$ mile of corduroy foundation laid. The road requires to be continued to Silver Mountain Station on the C. N. Ry., a further distance of about a mile.

*Township of Pearson:**Road between Lots 20 and 21—*

This road commences at the north limit of the township at the line between Lots 18 and 19, and runs south-westerly to the west limit of Lot 20, and then south



Graves Mountain, one of the many beautiful mountains on the Port Arthur, Fort William and Duluth Highway, Ontario; approximately about 800 feet above Lake Superior.

along that limit. Two and one-half miles of this road was grubbed, ditched and graded, $\frac{1}{2}$ mile of corduroy foundation laid, 11 culverts set.

Tip Top Mine Road:

This road commences about $2\frac{1}{2}$ miles west of Kashaboie Station on the C. N. Ry. (80 miles west of Port Arthur), and runs south-westerly $6\frac{1}{2}$ miles to the Tip Top Copper Mine. A roadway had previously been partially constructed from the mine towards the railway.

A road was cut out commencing at the railway, thoroughly ditched and a corduroy foundation laid for 3 miles; this has since been continued by the Mining

Company and completed to the already constructed portion. The whole has been covered with earth and gravel by the Company, and a tramway laid from the railroad to the mine to enable the Company to ship their ore to the C. N. Ry.

Township of Blake, Crooks and Pardee:

Port Arthur and Duluth Highway—

Nine miles of this road was regraded, ditches deepened, slide banks removed, 4 culverts were set and 2 small bridges erected. The road was continued a distance of 7 miles to the Pigeon River (The International Boundary); it was cleared, grubbed, ditched, 91 culverts set, 2 miles stone and corduroy foundation laid; the whole was graded and 5 miles of gravelling was done.

It is 44 miles from Fort William to the Pigeon River by this road.

This road affords access to a large area of good lands in Pardee Township lying to the west of the Stuart Mining Location, which has been isolated because of the absence of a road through the latter. The valley of the Arrow River (still in the Crown) is also served by this road; this is also a large and promising section.

The Minnesota State Highway Commission has completed a road to connect with this road at the Pigeon River from Duluth, distant 157 miles, and as soon as an International bridge is erected, there is every reason to believe that there will be a large traffic, more particularly tourist traffic, as the road passes through Grand Marais one of the most attractive summer resorts on Lake Superior. There is also a large area of good agricultural lands already settled south of and adjacent to the boundary. The timber being cut in this section on both sides of the boundary is manufactured at Port Arthur.

SAULT STE. MARIE, SUDBURY, AND GOULAIS BAY TRUNK ROADS.

New roads cut out and graded	3 miles
New and old roads re-graded and surfaced with gravel	16 miles
Old roads re-surfaced with stone	5 miles
Old roads re-graded	15 miles
Old roads repaired	6 miles
Total miles under construction and repair	45

The spring freshets commencing about the 20th of April last and the heavy rains early in September did great damage to the roads in the Algoma and Sault Ste. Marie districts, washing out culverts and bridges, and in other ways damaging the roads. These damaged roads had to be repaired at considerable cost. Only a few miles of new road were constructed.

Goulais Bay Road or that locally known as the People's Road, near the Town of Sault Ste. Marie, was partly re-constructed. The old road was found to be almost impassable in places and owing to the heavy grades several long diversions around bad hills had to be made in ascending the mountain to the Goulais Bay Valley, where there is a considerable settlement. In places the old road was very stony and rocky, also narrow and undrained. The road has not yet been completed; owing to the wet weather in October it was found impossible to finish the work on all the diversions. Difficulty in getting labour also retarded progress. The road, as now located, when finished, will make a fairly good road, and will give to a great number of settlers an opportunity of marketing farm produce at all seasons of the year, as well as their timber.

The work done on the main trunk road from Sault Ste. Marie to Sudbury consisted chiefly in re-surfacing parts with gravel and stone, repairing sections damaged by the spring freshets and heavy rains of September, and in placing permanent culverts. This road is now almost finished, with the exception of the gravelling of a few miles between Dean Lake bridge and Missisaugi which was left because of the impossibility of obtaining gravel during the summer; the gravel being on the opposite side of the Missisaugi River, and can only be hauled during the winter season. There are also 2 bridges, one west of Blind River and the other across Ladouceurs Creek, to be re-constructed.



A view on the Algoma Central Railway, along Magpie River, between town of Sault Ste. Marie, Ont., and Hearst.

SUDBURY DISTRICT.

Number of miles of road gravelled	7
Number of miles of new road cut out	6
Number of miles of new road graded	1
Number of miles of road repaired in places	40

The Dill Township road was graded for a distance of one mile.

The road from Sudbury to Long Lake in the Townships of McKim and Broder was re-graded for a distance of $3\frac{1}{2}$ miles.

The Sudbury and Murray Mine stone road was repaired and re-graded in places for a distance of 4 miles.

The Blezard Valley trunk road from Scoble Crossing north through the Township of McKim and Blezard for a distance of 1 mile was repaired.

The Levack Township mining road was re-constructed and repaired for a

distance of $3\frac{1}{2}$ miles. This road was originally constructed a year ago and was destroyed by the spring freshet, caused by the breaking of the dam at the foot of Onaping Lake. The old bridge across the Onaping River was carried away with the flood and is now being renewed.

The Shining Tree mining road, which was built two years ago by this Department, was partially destroyed by fire a year ago. The same was repaired, and 6 miles of new winter road cut out from the end of the old road cut two years ago north-easterly to the mines at Wasabika Lake. The road begins at Kashbaw Station on the Canadian Northern Railway, and runs in a north-easterly direction for 24 miles. The first 18 miles was constructed two years ago and was repaired, and a winter road only cut out for the balance of the distance.

SUDBURY AND NORTH BAY TRUNK ROAD.

Number of miles of road under construction	29½
Number of miles of new road constructed	15
Number of miles of new road cut out and graded	6
Number of miles of road macadamized	8½
Number of culverts built	60
Number of small bridges under construction	2

Five years ago a trunk road was constructed between Sudbury and the Village of Coniston, near the Mond Nickel Company's nickel and copper smelters and mines. The original road was well graded and drained, and, although well constructed, was chiefly of clay or light loam, and owing to the heavy traffic between Sudbury and the Village of Coniston, did not withstand the heavy traffic. During the wet weather it rutted to such an extent that in places it was almost impassable and it was necessary to re-surface it with rock. Early in May the stone crusher was set at work and operations were carried on during the entire season. The road is now completed, the distance being $8\frac{1}{2}$ miles. It was first re-graded, a few additional culverts placed, and 10,855 cubic yards of rock was crushed and put in place. The traction engine and large rock wagons were used in hauling the road material. The road was well rolled with a ten ton roller during construction and is now in first-class condition. The width of the rock surface is 9 feet.

The continuation of this trunk road east of Coniston to Wahnapiatae, a distance of 4 miles, as constructed a year ago by this Department, was re-surfaced with gravel as far as Wahnapiatae Station.

Early in June work was commenced on the continuation of the Sudbury and North Bay trunk road from Wahnapiatae easterly to a point on the Canadian Pacific Railway 3 miles west of the Village of Warren, a distance of 21 miles, where work terminated in 1915 on the construction of the same road from North Bay west: the distance covered this season being $29\frac{1}{2}$ miles. The first 6 miles east of Wahnapiatae was cut out, grubbed and graded; the next 6 miles to the Village of Markstay was cut and grubbed only. There is now a good winter road from Sudbury to Markstay. Heretofore the settlers from Markstay were unable to reach a market either to the east or west. From Markstay easterly the road followed the old Colonization road for about $2\frac{1}{2}$ miles north of the right-of-way of the Canadian Pacific Railway. The road then turned to the south, crossing the right-of-way, and was extended in a general direction parallel to the right-of-way to the end of the road as constructed a year ago 3 miles west of Warren. The road from Markstay to Warren has all been

graded, but in places requires surfacing with gravel. There is now a well graded road from Markstay to North Bay, 55 miles, which requires, however, surfacing with gravel in a few places west of Warren; there is now a winter road from North Bay to Sudbury, 80 miles, 6 miles of which still remains ungraded with 2 small bridges to be renewed.

The road between Warren and North Bay, which was finished a year ago, was improved by running a small grader over it in places where it had become slightly rutted. When the 6 miles of this road which is now ready for grading is finished, the settlers between North Bay and Sudbury will be able to market their produce either at Sudbury or North Bay, thus fulfilling a long felt want. Many of these settlers have been in occupation on their lots for nearly thirty years without being able to reach a market, more particularly those east and west of Markstay.

ROADS IN THE VICINITY OF NORTH BAY.

Township of Chisholm:

The Township of Chisholm Trunk Road commenced in 1915 was continued along Lots 5 and 6 of the said road a distance of $3\frac{1}{4}$ miles. The road was cut out and graded and the surface was gravelled.

Township of Widdifield:

The road in front of Lot 16, Con. 2, Township of Widdifield, was surfaced with gravel for a distance of $\frac{1}{2}$ mile.

NORTH BAY, CALLANDER AND POWASSAN TRUNK ROAD.

Total number of miles reconstructed, graded and surfaced
with gravel in places 24 miles

From the Village of Powassan, which is about 20 miles south of North Bay, work was begun on the North Bay, Callander and Powassan Trunk Road last May and continued up to the last of October when operations ceased at the Village of South River $20\frac{3}{4}$ miles south of Powassan. Between these two villages there was an old road built at different periods. There was very little through traffic over the road, it being almost impassable in places owing to bad grades, stony hills, and swamps. During the wet season traffic was completely stopped between South River and Trout Creek, the distance between these two villages being $8\frac{1}{4}$ miles. In order to improve the grades several deviations had to be made from the old road to avoid almost impossible hills on the 11th and 12 Concessions of the Township of Laurier. At this point about 2 miles of new road had to be cut out. The road as now constructed has very few heavy grades and from North Bay to South River there is a first-class road considering the character of the country it passes through. There are, however, a few places which still require gravelling and regrading later on. After the road leaves Powassan, in the Township of Himsworth, it runs in a south-westerly direction passing through the Village of Trout Creek, near the north limit of the Township of Laurier and extends in a south-westerly direction through

the last named township and the Township of Machar, a distance of 20¾ miles. The country passed through is generally rough and rocky in places, although there is a fair percentage of good agricultural land. The farmers in many instances have good buildings and land in a fair state of cultivation. Large sections of country are still covered with timber, chiefly hardwood.

The distance from South River to North Bay is a little over 40 miles and can be covered by an automobile in two hours. The road constructed this season will still require to be re-surfaced in a few places. The road will give the settlers what they have long required, access to the leading local markets, North Bay, Callander and Powassan, at all seasons of the year.

This Trunk Road when improved as far as Burk's Falls, a further distance of 20 miles, would constitute an excellent highway between North Bay and Bracebridge.

NORTH BAY AND MATTAWA TRUNK ROAD.

Twenty miles repaired.

The Trunk Road between Callander and Mattawa was constructed three years ago, was re-surfaced with gravel in places for 7 miles, and run over with the road drag for 20 miles in the Townships of Ferris, Bonfield, and Calvin.

PEMBROKE AND MATTAWA TRUNK ROAD.

During the winter of 1915-16, after finishing the surfacing and gravelling of the trunk road between the Military Camps at Petawawa and the Town of Pembroke, work was commenced in November, 1915, and continued throughout the winter season, in filling the eastern approach to the new bridge across the Petawawa River at the eastern entrance to the Petawawa Military Camps. Approximately 15,000 cubic yards of gravel and stone were required in this work. The road from the Military Camps to Pembroke is now in first-class condition.

ROADS IN THE ALGONQUIN PROVINCIAL PARK, DISTRICT OF NIPISSING.

Minesing Road, partly cut out, ditched and graded	10 miles
Nominigan Road, partly cut out, ditched and graded	7 miles

From Algonquin Park Station, on the Canada Atlantic Branch of the Grand Trunk Railway, in the Algonquin Provincial Park, two roads as above named were partly constructed and improved. Both start from the railway station near the headquarters of the Park Ranger and the Highland Inn, one of the railway company's beautiful summer resorts.

The Minesing Road winds its way over the hardwood ridges and through the valleys in a northerly direction for a distance of over 11 miles to the south-west shore of Island Lake, where the railway company has erected several fine summer resorts. The lake is one of the finest in the Park and is situated at the head waters of three important rivers, the Muskoka, Madawaska and Petawawa, at an elevation

of 1,600 feet above sea level. On this road 30 culverts were built, and two small bridges, with 44 and 40 feet span, constructed across Beaver and Polly Creeks.

Nominigan Road starts from the same station branching off the Minesing Road about a mile from the railway station and runs in a north-westerly direction to the outlet of Source Lake, where it crosses the Grand Trunk Railway to the south side, and then runs in a westerly direction to the east shore of Smoke Lake, near the source of the Muskoka River, where the Grand Trunk Railway Company has constructed and is operating several beautiful summer resorts. The distance from the railway station to the Nomingan Camps by the road is about 8 miles, on which 25 culverts and one bridge, 38 feet in length, were constructed.

The country passed through by these roads is rolling and rocky, mountainous in



Grand Trunk summer resorts. The end of the Minesing Road,
Algonquin Provincial Park.

places. From an agricultural point of view it has little or no value. The soil, where there is any, is light sandy loam with small areas of clay soil in the swamps and sand on the ridges. Unfortunately no gravel suitable for road purposes was to be found along the road, the only road material being a light loam and rock.

The land is well timbered with large birch, maple, ironwood and hemlock, with here and there, along the shores of the numerous lakes, groves of small pine, and on the high lands an occasional large white pine, the remains of the original pine forest which has been cut off.

A narrow wagon road had originally been cut out by the railway company. It was widened to a width of from 24 to 30 feet, graded with the best material available and well ditched, and is at present suitable for the traffic.



A field of wheat (first crop), on the Stewart Farm, near Earlington, on the Temiskaming & Northern Ontario Railway.



Sheep farming, west of Englehart, in the District of Temiskaming.



A field of barley in the Township of Dack, Temiskaming & Northern Ontario Railway.



A settler's home in Marter Township, Temiskaming & Northern Ontario Railway, showing field of barley.



A settler's first team, Township of Evanturel, near Englehart,
Temiskaming & Northern Ontario Railway.



Constructing a bridge across the Blanche River, near Englehart, Temiskaming &
Northern Ontario Railway.

ROADS IN THE VICINITY OF ENGLEHART, TOMSTOWN, BRENTHA, LONG LAKE, AND CHARLTON.

Number of miles newly graded road with new culverts	26
Number of miles road, regraded with repaired culverts	59
Number of miles road cut and burnt only	9
Number of miles road stumped ready for grader	5
Number of bridges built	6

In the section north and south of Englehart, along the T. & N. O. Rly., south-east to Tomstown, west to Charlton, and along the north-east shore of Long Lake, and south-west of Brentha, considerable damage was done to the roads, culverts, and bridges by the early spring floods. An unusual depth of snow fell during the winter of 1915-16—in places from four to five feet in depth, followed by heavy spring rains and a sudden thaw about the middle of April. The water rose in the Blanche River nearly 20 feet in five days. Many of the old bridges and culverts, as well as a few of the new ones, were washed out. Ditches and roads were destroyed which had all to be renewed at considerable cost. Labour was difficult to procure and expensive.

Fairly good results, however, were obtained for the money expended. Crops throughout this district were fine, especially hay and clover. Grain crops would have yielded well had it not been for the extremely dry weather during the latter part of July and the first two weeks in August, which caused the grain to ripen too rapidly.

Great progress is being made by the settlers in this district, both in clearing land and in erecting good buildings. Little damage was done in this section by forest fires last season, although considerable small areas were burnt over.

ROADS AND BRIDGES CONSTRUCTED AND REPAIRED IN THE VICINITY OF MATHESON, AND THE MINING DISTRICT OF KIRKLAND LAKE, MUNRO AND LARDER LAKE, DISTRICT OF TEMISKAMING.

Number of miles of road repaired	47
Number of miles of new road cut	2½
Number of miles of road gravelled	6
Number of miles of road re-surfaced with stone	3
Number of miles of road graded	10
Number of bridges constructed	5
Number of bridges repaired	8

During the winter of 1915-16 work was continued on the eastern part of the trunk road from the Town of Matheson to the gold mines in Township of Munro; 5 miles of the road graded the previous season was surfaced with gravel, part along the south boundaries of the Townships of Beatty and Munro.

During the summer season work was performed in the Townships of Hislop, Beatty, Bowman, Carr, Currie, Taylor, Walker, Clergue, Stock and Bond. Also, the trunk road from Swastika to the Kirkland Lake mining district was re-surfaced with rock for a distance of 3 miles. The old road from Dane Station, on the Temiskaming and Northern Ontario Railway, to the mines operating in the vicinity of Larder Lake, a distance of 18 miles, was repaired in places and several old bridges and culverts renewed. The work in the above-mentioned townships consisted chiefly in grading, re-grading and in other ways improving old roads cut out during



A typical settler's home in the Township of Evanturel, Temiskaming & Northern Ontario Railway.



Harvesting rye along the Temiskaming & Northern Ontario Railway.

the last five years. Owing to the spring freshets and the forest fires, which swept over the greater portion of the townships in the neighbourhood of Matheson during the latter part of July and the fore part of August, most of the culverts, small bridges and a couple of large bridges were destroyed by fire, and much of the corduroy roads burned over. Immediately after the fire, work was begun in repairing the damage done. This occupied nearly all the time from August to the end of the season and cost considerable. Most of the timber suitable for culverts was burned and permanent corrugated iron culverts had to be procured; 140 of these were secured and the greater number of them have been placed. A few of the smaller bridges have been re-constructed and work is now under way constructing two of the larger bridges burned out.

The heavy freshets during the month of April, as in other sections of the district, did great injury to many of the clay roads, which had to be re-graded. Labour was hard to procure and expensive. Several of the proposed new roads had to be abandoned. The results obtained in this district, owing to the great losses by fire, in the construction of new roads this season have not been entirely what was hoped for or expected.

The warehouses, office and stables at Matheson were completely destroyed, along with considerable camp equipage and supplies. These, however, were partially covered by insurance. They have since been re-constructed.

Fifty acres of land on the north part of Lot 4, Concession 6, Bowman Township, was cleared, stumped, fenced and plowed and about 30 acres of it put under cultivation as an Experimental Farm. The results were very satisfactory.

PORCUPINE MINING SECTION.

Total number of miles of road under construction	18 miles
New roads constructed and graded	5½ miles
Old roads graded	7¼ miles
Roads re-surfaced with stone	5¼ miles

The Trunk Road between Golden City and Mattagami River, which passes through South Porcupine and Timmins, over which there is a great deal of heavy traffic between the mines, was re-surfaced with rock for 2½ miles and with gravel for 1½ miles.

A new road starting from the Trunk Road at the Mattagami River was cut out and graded north along the easterly bank of the river to Concession 2, Township of Mountjoy for 1½ miles, to accommodate the farmers along the river.

The road between the Townships of Tisdale and Mountjoy, and between the Townships of Delora and Ogden from the Town of Timmins to the Hayden Mine, 3¾ miles was widened, grubbed and graded. One bridge, 26 foot span, was reconstructed and part of the road surfaced with gravel.

A road from the T. & N. O. Rly. crossing at the Town of Timmins to the Vipond Mine was grubbed, graded and surfaced with crushed rock from the mines for a distance of 1 mile.

A road from South Porcupine to the Crown Chartered Mine and other mines along the boundary between Tisdale and Whitney, was repaired and graded for a distance of 3 miles.

A branch road from the Trunk Road, between Golden City and South Porcu-



Trunk road, Timmins to South Porcupine, re-surfaced with rock this season (1916).



Road from the Hayden Mine to the town of Timmins, under construction 1916.



Plan of the Mattagami Pulp & Paper Co., Ltd., proposed pulp and paper mills now under construction at Smooth Rock Falls, on the Mattagami River, 30 miles west of the Town of Cochrane, Transcontinental Railway. Capacity of first unit, 150 tons sulphite fibre; hydraulic development at 45-foot head, 9,000 h.p. A spur line has been constructed from the Transcontinental Railway, north $3\frac{1}{2}$ miles to the mills.

pine to Dead Man's Point on Porcupine Lake near the public cemetery, was graded for $\frac{1}{2}$ mile and gravelled $\frac{1}{4}$ mile.

The road from Golden City to Pottsville, which had been damaged by the spring freshet, was re-surfaced with rock for $\frac{1}{4}$ mile.

The road cut out last season in the Township of Mountjoy, west of the Mattagami River, was graded, commencing on the west side opposite the main Trunk Road, through Mattagami Heights running in a north-westerly direction across Lots 1 and 2 to the 3rd Concession line, thence west along said concession line for a distance of 2 miles, a distance of $3\frac{1}{4}$ miles in all. Six culverts were placed and one bridge 52 feet long was constructed.

WORK DONE IN THE DISTRICT OF COCHRANE, ALONG THE LINE OF THE TEMISKAMING AND NORTHERN ONTARIO RAILWAY SOUTH TO PORQUIS JUNCTION, WEST ALONG THE PORCUPINE BRANCH OF THE TEMISKAMING AND NORTHERN ONTARIO RAILWAY, EAST ALONG THE BRANCH TO THE ABITIBI RIVER, AND ALONG THE TRANSCONTINENTAL RAILWAY EAST TO THE ABITIBI RIVER AND WEST TO THE TOWN OF HEARST.

Total number of miles of roads, old and new, under construction.....	129
Number of miles of roads under construction and repaired.....	57
Number of miles of new roads cut out	10
Number of miles of old roads burned	$7\frac{1}{2}$
Number of miles of roads stumped ready for grading	$21\frac{1}{2}$
Number of miles of roads ditched	18
Number of miles of roads, old and new, graded	15
Number of bridges built	15
Number of culverts built and renewed	146

The work performed in the Cochrane District consisted chiefly in completing roads which had been cut out in previous years; the work extended over 129 miles, of which 10 miles of new road was cut out this season. The early spring floods and the fires of July and August did great damage to the roads in this district. Several of the old bridges and culverts were washed out, including part of the new bridge and dam at Connaught on the Frederickhouse River. More than 100 culverts were destroyed in the recent fire and several small bridges, also many miles of corduroy roads. On the most important roads the culverts and bridges have been renewed, and where the corduroy was burnt out it has been removed and the roads re-graded. Good results were obtained for the money spent, although labour was hard to procure and expensive.

The fire of July 29th destroyed the two store-houses at Cochrane, in which there was considerable road plant and provisions. The buildings were insured and the loss was not very great. The warehouses were rebuilt.

A ferry was constructed across the Mattagami River west of the Town of Timmins. Several short roads were constructed in different parts to enable the school children to reach the nearest schools. Where the corduroy was burnt out on the old roads ditches had to be enlarged. Fifteen new wooden bridges were constructed and 146 culverts, of which 40 were of corrugated iron.

Splendid results have been obtained from the experimental gardens and farm

plots at Cochrane, Ground Hog, Kapuskasing, Hearst and Nagagami, 40 miles west of Hearst. Very good progress is being made along the Grand Trunk Pacific Railway and along the Temiskaming and Northern Ontario Railway and its branches, in clearing up land by the settlers. The crops throughout the district were in most places very good, more especially timothy, clover, fall wheat, also vegetables and root crops. Crops planted in reasonable time did not suffer from summer frosts. The late crops, owing to the extremely hot weather in the latter part of July and fore part of August, ripened too quickly and did not yield as well as was expected. Potatoes and all kinds of vegetables yielded well. Great improvement has been noticed in the climatic conditions where large areas of land have been cleared or burnt off.



The Hon. G. H. Ferguson, Minister of Lands, Forests and Mines, on a visit to the Mattagami Pulp and Paper Mills, Mattagami River, Transcontinental Railway.

KAPUSKASING, INTERNED ALIENS CAMP, TRANSCONTINENTAL RAILWAY, SEVENTY MILES WEST OF COCHRANE, DISTRICT OF TIMISKAMING.

During the winter of 1915-1916 work was continued along the right-of-way of the Grand Trunk Pacific Railway east and west of the Kapuskasing River where is situated the Interned Aliens Camp and the Experimental Farm of the Department of Agriculture at Ottawa. The work consisted in the cutting and burning of all the timber on both sides of the right-of-way for a depth of 10 chains, or approximately 25 acres on each lot. The report of 1915 gives a detailed description of what had actually been done at the end of October 31st, 1915. Since that date 600 acres have been cut out and burnt over. About 5 acres on the east side of the Kapuskasing River was ploughed and put under crop. The land was burnt over

and ploughed early in May and sown about the latter part of May. The crops sown about the first of June did not mature as they were caught by the frosts in September. Potatoes and vegetables, however, that were planted early in the season gave a first-class yield. On the east side of the river where the crops were sown early, splendid results were obtained. The soil in this section of the country is a rich clay and clay loam. In the immediate vicinity of the Dominion Experimental Farm there is approximately 1,000 acres clear and burnt over, and along the right-of-way east and west of the river there is an additional 600 acres of lands of the Crown. This land was well burnt during the dry season; great care was



A typical view on the banks of the Kapuskasing River, Transcontinental Railway.

taken and no damage was done to timber outside the limits of the cleared area. About the middle of May the interned aliens refused to work and after that date no further work was done in clearing land. A small sawmill was erected on the Kapuskasing River and the merchantable timber taken out during the process of clearing was sawed into lumber. Part of the foundation for a bridge across the river was constructed. The Agricultural Department at Ottawa have now large farm buildings constructed and a large area of land ploughed ready for a crop. This section of the country has now every appearance of becoming one of the best agricultural sections along the Transcontinental Railway in the Clay Belt.

ROADS ON MANITOULIN ISLAND.

GRADING AND REPAIRING, 1916.

Number of miles of road graded and surfaced with gravel, 8½.

One bridge constructed.

Eight stone and 24 corrugated iron culverts placed.

The main trunk road on Manitoulin Island is constructed between Little Current and Gore Bay, the distance being about 40 miles. The easterly portion of this road from Little Current westerly for 10 miles is in very fair condition, most of it having been surfaced with gravel and well graded and ditched, although in a few places the road had been constructed too narrow.

Operations were commenced early in May about 12 miles west of Little Current and continued the work westerly for a distance of over 7½ miles to West Bay, and from that point south towards Mindemoya, a further distance of 1½ miles. The road, previous to my starting work, had in places been constructed too narrow; it was badly drained and in places had not been graded. The road was widened well ditched and surfaced with gravel. Part of the road from West Bay south to Mindemoya was only a mere trail and had to be cut out. There is now a first-class gravel road between Mindemoya, West Bay and Little Current, the distance being approximately 20 miles. There is a great deal of traffic over this road, it being the main trunk road on the Island. The continuation of this trunk road west of West Bay to Gore Bay requires to be re-graded and re-surfaced in places, and continued southerly along the east shore of Mindemoya Lake, the Mindemoya Road being the main trunk road running north and south across the Island. These roads pass through a fairly good agricultural country in a good state of cultivation. The country, although rocky and swampy in places, is well adapted for agriculture. Part of the road was difficult to improve owing to the narrow road as originally constructed and the number of small surface boulders met with. Good gravel, however, was plentiful and no difficulty was met with in making a good permanent road. Where drainage was required corrugated iron or stone culverts were placed where no timber was available.

EXPERIMENTAL FARM AND GARDEN PLOTS.

Matheson Experimental Farm Plot:

This farm is situated near Matheson on the north half of Lot 4, Concession 6, Township of Bowman, along the line of the Temiskaming and Northern Ontario Railway. Fifty acres of this lot was cleared early last spring and about 30 acres put under crop. All kinds of grain, as well as different kinds of vegetables, were tested with good results. The land had been burned over several years ago and was easily cleared. The greater portion of it is high and rolling; part, however, is low and covered with considerable black loam. The land was plowed as soon as the snow disappeared, and planted between the 10th and 24th of May. The fires of July and August which swept over the Matheson district did considerable damage to the crops. Except, however, where damage by the fire had been done, the crops were of first-class quality and matured without injury by summer frosts. Different varieties of spring wheat were sown, the Marquis, however, gave the best results.

Different varieties of peas were also sown and all matured. The barley, oats and flax were likewise a good crop and would have given a heavy yield had it not been for the extremely hot dry weather during the latter part of July and the first two weeks in August. The grain ripened very fast and was not as well filled as was expected. About 40 acres of land was plowed last fall and 8 acres of it sown in fall wheat.

Cochrane Garden:

The garden plot at the headquarters at Cochrane and the farm about one mile west of Cochrane were planted as in previous years and gave excellent results. Strawberries, early corn, beans, celery, potatoes, turnips, etc., yielded well, also all kinds of grain. Fall wheat gave 43 bus. per acre; spring wheat 30 bus. per acre.



Flower and vegetable garden at headquarters of Northern Development Branch, Cochrane.

Three varieties of spring wheat were sown on the 27th of April on fall plowed land and were harvested on 12th of August. Barley gave a good yield. Different varieties of oats were sown; the Siberian and Banner oats appeared to give the best results.

As this land is high and had been cultivated for two previous seasons no injury was done by summer frosts.

From the three years' experience with our experimental farms and very careful observations during the last five years, it would appear that it is necessary to plow the land in the fall of the year so as to be prepared to sow the seed at the earliest opportunity after the snow disappears in the spring. By so doing I find that there is little risk of summer frosts unless the land is low and undrained.

At Kapuskasing River, 70 miles west of Hearst, where the Dominion Government has established an experimental farm, a few acres were sown in oats, peas, barley, wheat and potatoes. These were sown about the 20th May and gave ex-



At Cochrane Experimental Garden, showing clover and peas.



A field of rye at Hearst, Ont.

cellent results. The land was burned off in the early part of May and received little or no cultivation. Crops on the opposite side of the river, sown on the Dominion Experimental Farm, gave splendid results.

At Hearst the timothy and clover was an excellent crop. The grain crop, however, was light owing to the extremely dry weather.

At Nagagami, where the soil is a light clay or clay loam, excellent crops were produced, more particularly in potatoes, corn and other vegetables. Tomatoes ripened on the bank of the river and were a splendid crop. Clover and timothy grew in great abundance.

Throughout the entire district very little damage was done by the summer frosts, except on the low lying lands where the sub-soil was covered with considerable black loam. The high lands were comparatively free from any damage and the crops in general were as good as the crops in Old Ontario.

Timothy and clover throughout the district yielded from 3 to 3½ tons per



A view of Nagagami River, Transcontinental Railway, 40 miles west of Hearst.

acre. Two crops of clover were cut; the second crop of red clover yielding 1¼ to 1½ tons per acre. From the splendid growth of clover throughout the Clay Belt last season there is every appearance that the farmers in the Clay Belt will find it very profitable to grow clover seed. Where alfalfa was tested the results were very favourable.

Ground Hog Experimental Farm and Garden:

At Ground Hog, 50 miles west of Cochrane, on the experimental garden on the bank of the river and on the experimental farm about 2 miles west of the river, the results were very favourable. The following is a general report of the results obtained. On these plots more attention was given than on the before-mentioned plots:

Fall Wheat.—Three varieties of fall wheat were sown. These were Dawson's Golden Chaff, Imperial Amber and Grand Prize; the different varieties were grown

side by side, sown on September 4th and cut on August 10th. Dawson's Golden Chaff straw had a length of 3 ft. 4 in. and yielded 30 bus. per acre. Imperial Amber had a length of 3 ft. 9 in. and yielded 32 bus. per acre. Grand Prize had a length of 3 ft. 6 in. and yielded 45 bus. per acre. The grain was bright in colour, a good size and plump.

Spring Wheat.—Three varieties were tried, namely, Marquis, Prelude and Wild Goose. All were sown on April 29th on fall plowed soil. The Marquis and Wild Goose varieties were harvested on the 20th August; Prelude ripened almost two weeks earlier. It is a small headed wheat and a light yielder. Neither varieties were touched with summer frosts.

Barley.—Barley yielded exceptionally well. The grain was particularly bright and plump and weighs well. From $1\frac{1}{2}$ acres we thrashed 75 bus. of barley. It was sown on May 26th and harvested August 20th.

Peas.—A plot of Improved Crown Peas were sown on May 26th and harvested on August 26th without damage from frost. One plot of Golden Vine Peas went so much to straw that they were caught by the frost before ripening. Peas where sown with a mixture of oats yielded 55 bus. per acre.

Oats.—Different varieties of oats were sown, namely, O.A.C. No. 3, O.A.C. No. 72, Siberian, Banner, Rennie's Early Yielder and Ligawa, on May 26th and all harvested before the first frost. The O.A.C. No. 3 and No. 72 were the heavier yielders. The Siberian gave a splendid yield, while the Early Yielder was the lightest. The average yield for the entire crop was about 45 bus. per acre.

Clover.—Red clover made a remarkable showing and gave a heavy yield of cured hay. From one acre of pure red clover the first cutting gave a yield of 2 tons 600 lbs. of cured hay. One-half acre was set aside to procure seed from; the sample of seed is good. The second cut of clover gave a yield of 1 ton 400 lbs. of cured hay.

Alfalfa.—A plot of alfalfa seeded on June 1st attained a length of 14 inches during the season.

Roots.—The turnips and mangel crop was the best in our experience. The soil was plowed in the fall and manured in the fall as well, when possible. Good spring cultivation and early planting is found to give the best results. The mangels were sown on May 24th, turnips on May 24th, June 1st, June 8th and June 13th. The turnips sown on May 24th gave the heaviest yield and special mention might be made of the Holborn, Kangaroo, Swede and the hardy Prize Winning Swede turnips.

Potatoes.—The potato ground was plowed in the fall and well worked up in the spring. Just as soon as the soil has sufficient warmth in the spring, planting commenced and is continued at intervals, as a rule from May 24th until June 20th. During the past three seasons our first planting was made on May 20th. Planting on this early date has never been interrupted by the frost. During the season of 1916 we planted at late as June 27th and a yield of 226 bus. per acre was obtained.

Irish Cobbler gave a yield of 280 bus. per acre; Green Mountain, 236 bus. per acre; Carman No. 1, 240 bus. per acre; Puritan, 246 bus. per acre.

Carrots, Parsnips and Beets.—These three vegetables gave a heavy yield and were of first quality, the carrots being particularly good.

Celery.—Celery did remarkably well during the present season and by planting out healthy plants with a strong clean root system this plant is a profitable one for any settler to grow.

Production of Seed.—A quantity of good turnip seed was produced on the farm in 1915. This was sown in 1916 with the seed showing good vitality and producing a heavy crop.

Small Fruits.—The season of 1916 was very favourable for the production of strawberries, red raspberries, red and black currants.

With some attention and care at the necessary time a settler would be well repaid for the labour expended.

Throughout the northern district there is a growing demand for a better class of live stock. At the Ground Hog Farm the Department has secured a few thoroughbred pigs, cattle, sheep and poultry which are doing well and are a very great benefit to the settlers. Pasture throughout the summer season, even in the dry season, never failed. Along all the old roads and burnt over areas both timothy and clover are to be found in great abundance. From the splendid results we have had on this farm and on the other experimental plots I am convinced that when the settlers can afford to cultivate their lands as is done in the older sections of the Province that equally good results will be obtained.

(Sgd.) J. F. WHITSON,

Commissioner.

To the Honourable the Minister of Lands, Forests and Mines:

SIR,—I beg to recommend the expenditure of the following amounts during the season of 1917 under the *Northern and Northwestern Ontario Development Act*, 1912, on the construction of new roads, repairing and surfacing of old roads, the construction of bridges and culverts, the clearing of Crown Lands and the operation of Experimental Farms and garden plots at and near the Towns of Cochrane and Hearst: at the Ground Hog River, 50 miles west of Cochrane; at Kapuskasing, 70 miles west of Cochrane; at the Nagagami River, 40 miles west of Hearst, all on the Transcontinental Railway; and at the Town of Matheson, on the Temiskaming and Northern Ontario Railway.

District of Rainy River:

In the Rainy River Valley, to re-surface with gravel roads constructed last season, also the opening up of new roads in the partly settled townships in the northern part of the Rainy River Valley, and draining low-lying townships tributary to the Grassy River \$35,000

District of Kenora:

To continue the grading of new roads in the agricultural section north and north-west of Dryden, and in the Valley of the Wabigoon River between the Grand Trunk Pacific Railway and the Canadian Pacific Railway, and in the partly settled townships east of Kenora 15,000

District of Port Arthur:

Re-surfacing trunk roads and the construction of new roads in the townships north, north-west and east of the City of Port Arthur, also bridge across Dog River, and the improvement of the Black Bay Road.. 30,000

District West and South of Fort William:

The re-surfacing and extension of the trunk roads under construction last season west of Fort William, the gravelling of parts of the Pigeon River or the Port Arthur, Fort William and Duluth Highway, including approach to International Bridge; the opening up of new roads in the Townships of Conmee, O'Connor, Lybster, Strange, Pearson, Paipoonge and Gillies, and two bridges on Slate River on trunk road 50,000

Sudbury and Sault Ste. Marie Trunk Road:

The construction of two bridges, one across the west branch of the Mississauga River and one across Laudouceaux Creek; the completion of the gravelling of parts of the trunk road between Cuttler and Spanish River Stations, partly under construction last season, and the gravelling of part of trunk road along the Mississauga River 35,000

Sault St. Marie:

To complete the grading and improving of the People's Trunk Road from a point about 7 miles north of Sault Ste. Marie to a point on Batchawaung Bay, passing through Goulais Bay settlement, under construction last season 2,000

Manitoulin Island:

To continue the trunk road west from West Bay towards Gore Bay across the Manitoulin Island, and south to Mindemoya 10,000

District of Sudbury:

Surfacing with gravel and grading parts of the trunk road from the Village of Coniston to the Village of Warren on the Sudbury and North Bay Trunk Road; the completion of a mining road north of Onaping Station on the Canadian Pacific Railway, and the re-surfacing parts of trunk roads in the Blezard and the Chelmsford Valleys; cutting out an extension of the Shining Tree Mining Road from Shining Tree Lake to Wasabika, also cutting out of a winter road north of Shining Tree 50,000

Sudbury and North Bay Road:

Re-surfacing parts of the trunk road between North Bay and Sturgeon Falls, and the construction of bridge on the Colonization Road south of Sturgeon Falls Station	8,000
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District of Nipissing:

To extend the Mattawa and Pembroke Trunk Road east from a point 5 miles east of Mattawa	5,000
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The extension south of the North Bay, Callander and Powassan Trunk Road from South River to Burk's Falls, and the completion of the trunk road in the Township of Chisholm	18,000
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District of Porcupine:

The construction of Mining Roads in the Porcupine Mining District and Colonization Roads and Bridges in the townships along the Porcupine Branch of the Temiskaming and Northern Ontario Railway, and the Township of Mountjoy	20,000
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Temiskaming and Northern Ontario Railway:

Roads in townships east and west of the Temiskaming and Northern Ontario Railway from Cochrane south to Porquis Junction, including roads along the Iroquois Falls Branch of the Temiskaming and Northern Ontario Railway from Porquis Junction to the Abitibi River	40,000
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Roads east and west from the Temiskaming and Northern Ontario Railway extending from Porquis Junction south to Boston Creek	40,000
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Roads east and west of the Temiskaming and Northern Ontario Railway from Boston Creek south to the Village of Earleton, including the completion of a bridge over the White River east of Englehart; also extending west along the Charlton Branch of the Temiskaming and Northern Ontario Railway, and west, north-west and south-west of Charlton, including bridge across the Blanche River at Charlton	55,000
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Transcontinental Railway:

The construction of roads and bridges along the Transcontinental Railway from Abitibi River, east of Cochrane, west to the Town of Hearst, including also the clearing of lands and the construction of roads and bridges east and west of the Military Detention Camp and Dominion Government Experimental Farm at Kapuskasing	60,000
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To grade the North Bay and Trout Lake Road	2,000
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For operating Experimental Farm plots near the Towns of Cochrane and Hearst; at the Ground Hog River, 50 miles west of Cochrane; the garden plot on the Nagagami River, 40 miles west of Hearst, all on the Transcontinental Railway; and the farm plots near the Towns of Matheson, Monteith and New Liskeard, on the Temiskaming and Northern Ontario Railway	15,000
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For the construction of stables and storehouses near railway stations for the accommodation of incoming settlers	10,000
Unforeseen work and explorations, survey of new roads, renewing of old or damaged bridges and culverts, re-surfacing and improving of old roads and the construction of short roads in sections where new settlement is taking place or mines opening up	40,000
Office and engineering expenses, equipment and plant	20,000
	<hr/>
	\$560,000
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I have the honour to be, Sir,

Your obedient servant,

J. F. WHITSON,

Commissioner.

Toronto, January 5th, 1917.

Appendix No. 37.

REPORT OF THE FORESTRY BRANCH.

PARLIAMENT BUILDINGS, TORONTO.

SIR,—I have the honour to submit the following report of the Forestry Branch for the year ending October 31st, 1916.

PROVINCIAL FOREST STATION, NORFOLK COUNTY.

Forest Nurseries.—The following is a list of the plants in the Nurseries:—

White Pine in seed beds	196,000
White Pine transplants	140,500
Scotch Pine in seed beds	200,000
Scotch Pine transplants	63,000
Red Pine in seed beds	100,000
Red Pine transplants	5,000
Jack Pine in seed beds	100,000
Jack Pine transplants	17,000
Arbor Vitæ transplants	72,000
Miscellaneous Conifers	10,000
Black Locust	45,500
Black Walnut	12,500
Butternut ..	33,000
Sugar Maple	32,000
White Maple	16,800
Red Maple	2,600
White Ash	4,600
American Elm	5,400
Manitoba Maple	5,300
Chestnut ..	2,500
Red Oak	2,000
Miscellaneous Hardwoods	5,000

Total 1,070,700



THE WHITE-PINE BLISTER RUST

Figure "A" shows a young white pine with open blisters and swollen bark.

Figure "B" shows a leaf of flowering currant bearing the early currant stage.

Figure "C" is a part of the same leaf much magnified and showing four of the spore masses.

Figure "D" shows a black currant leaf bearing the late filamentous stage, this being the stage in which it is transmitted to the pine trees.

"A," "B" and "D" natural size.

This last season proved to be very unfavourable for the propagation of coniferous seedlings. The extreme wet weather just after seeding caused considerable loss. This was followed by extreme drought during July and August so that the seedlings have entered the winter in somewhat unfavourable conditions.

Forest Planting.—The demand for nursery stock for forest planting has fallen off considerably during the past two years. This is probably owing to the labour situation created by war conditions. Last spring we shipped to private owners for demonstration forest planting work, about 150,000 plants.

WHITE PINE BLISTER RUST.

During the past season the Forestry Branch has had charge of the investigation of the "White Pine Blister Rust," which is a plant parasite introduced from Europe during the past decade.

Description of the Disease.—This disease attacks only the five-leaved pine group, to which our white pine belongs. Red or Norway and other two-leaved pines are immune.

The fungus causing the disease belongs to the rusts, of which the wheat rust is a well-known example. Like the wheat rust, the White Pine Blister Rust has two entirely different hosts. These are the white pine for one stage of growth and currants and gooseberries for the other stage.

The life history of the blister rust is as follows: The winter spores (seeds) produced during late summer and autumn upon the currant and gooseberry leaves (Figure D) are blown to white pines in the vicinity. They stick to the bark of young trees or branches, germinate, and the young threads penetrate the inner bark tissues. There is no visible sign of the attack for from one to several years, after which a thickening of the region occurs, finally resulting in a more or less spindle-shaped swelling. On this area, early in the spring, blisters appear filled with orange-yellow spores. The blisters break open, setting free the spores inside. This is the most conspicuous stage of the disease on the pine, but lasts only from about the middle of April to the middle of June. (Figure A.)

The spores (seeds) liberated from the pine blisters are blown about and fall upon the leaves of any currants or gooseberries that may be in the vicinity. Here they germinate at once and infect the leaves. In the course of a couple of weeks a new crop of spores (summer spores) is produced in tiny orange pustules on the lower surface of the currant or gooseberry leaves. (Figure B.)

These summer spores on being liberated in turn infect other currant and gooseberry leaves, and in another two weeks there is a new crop of summer spores on the new host. (Figure B.) The repetition of this cycle spreads the disease rapidly during the summer in an area which is constantly enlarging.

Towards the latter part of summer the currant and gooseberry leaves produce on their lower surface slender horn-like outgrowths, which give rise to a different kind of spore. (Figure D.) These are known as winter spores and are capable of attacking pines but not currants or gooseberries.

From this account it is evident that the two hosts are necessary for this disease to spread. By successive infections of summer spores from diseased currants or gooseberries, this process repeated over and over again during the summer, the disease may spread long distances, and in the autumn infect white pines by means of the winter spores. These winter spores will attack only the pine. In the following spring the spores produced on pine re-infect the currants and goose-

berries, and the spreading march commences anew. The eradication of the disease accordingly can only be brought about by the destruction of the hosts in infected areas.

The stage of the rust upon the pine is the one in which the chief damage is done. The fungus lives year after year in the bark tissues of the pine until the stem or branch is girdled and the portion above dies. It is sure to kill the affected trees if the attack is on the stem.

During the past season we have had six Inspectors travelling throughout the older parts of Ontario locating where the disease may have obtained a foothold.

In addition to the work of these Inspectors, we have had very valuable assistance and co-operation from Mr. McCubbin who has charge of the Federal office of plant pathology at St. Catharines. We have also had the valued assistance of Prof. Howitt, Botanist of the Ontario Agricultural College. The following is a summary of the location and status of the disease as it now exists in Ontario:—

A.—EASTERN LIMIT.

I. *Durham County.*

1. Clarke Tp.—One pine and a few adjacent currants diseased in 1915. No trace of disease found in 1916.
2. Darlington Tp.—Seventy-five pines diseased. Currant rusted area involved eight miles in a north and south direction; survey for east and west limits unfinished. All infected pine removed.

II. *Victoria County.*

1. Ops Tp.—Three pines diseased. Currant rust progressed a maximum distance of three miles (S. E.) from original centre, involving ninety bushes in ten town gardens. All infected pines removed.

B.—NORTHERN LIMIT.

I. *Simcoe County.*

1. W. Gwillimbury Tp.—One hundred and ninety-four pines diseased. Currant rusted area now eleven miles square. All infected pines removed.

C.—WESTERN LIMIT.

I. *Elgin County.*

1. Dunwich Tp.—Currant rust found in 1915. No currant rust found in 1916.
2. Bayham Tp.—Eight rusted currant bushes in two locations.

D.—INTERIOR.

- ##### I. *Wellington County.*—One infected pine found early in spring and removed. No currant infection in 1916.

II. *Brant County.*

1. Brantford Tp.—Two pines and one currant bush diseased in 1915. No trace of disease in 1916.

III. *Halton County.*

1. Trafalgar Tp.—Eight trees and currant rust in 1915. Twenty-two trees in 1916; much currant rust in 1916 on seventeen properties.

E.—NIAGARA PENINSULA.

I. *Wentworth County.*

1. Saltfleet Tp.—Rust in seven currant properties.

II. *Haldimand County.*

1. S. Cayuga Tp.—Two rusted currant bushes.

III. *Lincoln County.*

1. Clinton Tp.—	61	patches of diseased currants found.		
2. Gainsboro Tp.—	10	"	"	"
3. Grantham Tp.	1	"	"	"
4. Grimsby Tp.	53	"	"	"
5. Louth Tp.	37	"	"	"

IV. *Welland County.*

1. Bertie Tp.—	17	"	"	"
2. Crowland Tp.—	3	"	"	"
3. Pelham Tp.—	45	"	"	"
4. Stamford Tp.—	18	"	"	"
5. Thorold Tp.—	31	"	"	"
6. Willoughby Tp.—	7	"	"	"

A large number of White Pine infections have been found in the Niagara Peninsula, especially in Pelham, Thorold and Grimsby townships. Many of these infections have been found on native pine. The disease has become firmly established in this region and presents a serious problem owing to the prevalence of both currants and White Pine.

RAILWAY FIRE PROTECTION.

The Province of Ontario has during the past season employed twelve Inspectors to cover the railway lines coming under the jurisdiction of the Board of Railway Commissioners for Canada. These men investigate and report on fires; inspect fire protective appliances on locomotives; report on right-of-way conditions as related to fire hazards, and inspect fire patrols as required by the Board. The details of this inspection work was outlined in our report of 1915.

STATISTICAL REPORT OF FIRES ORIGINATING WITHIN 300 FEET OF RAILWAY LINES IN
ONTARIO FOR THOSE LINES SUBJECT TO THE JURISDICTION OF THE BOARD
OF RAILWAY COMMISSIONERS FOR CANADA. SEASON, 1916.

	C. N. R.	G. T. R.	C. P. R.	A. C.	Totals
<i>(a) Railway Fires:</i>					
1. Number, by causes:—					
(a) Locomotives, Class *A fires	4	8	2	.....	14
Class †B fires	56	13	29	1	99
(b) Employees, Class A fires.	.....	.....	.....	.....	.....
Class B fires.	3	.....	2	.....	5
(c) Total of Class A fires	4	8	2	.....	14
Total of Class B fires	59	13	31	1	104
Total of railway fires	63	21	33	1	118
2. Areas burned (acres):—					
(a) Young forest growth	361	26	124	.....	511
(b) Timber land	546 $\frac{1}{2}$	.....	129	.....	675 $\frac{1}{2}$
(c) Slashing or old burn	875 $\frac{1}{4}$	164 $\frac{3}{4}$	536	5	1,563
(d) Other classes of land	40 $\frac{7}{8}$	50	44 $\frac{3}{8}$	.....	135 $\frac{1}{2}$
(e) Total	1,805 $\frac{5}{8}$	240 $\frac{3}{4}$	833 $\frac{5}{8}$	5	2,885
3. Value of property destroyed:					
(a) Young forest growth	\$475 50	\$41 00	\$169 50	.....	\$686 00
(b) Standing timber	722 00	.....	552 50	.....	1,274 50
(c) Forest products	18 75	.....	.....	.....	18 75
(d) Other property	622 50	5 00	138 65	.....	766 15
(e) Total	\$1,838 75	\$46 00	\$860 65	.....	\$2,745 40
<i>(b) Known Causes other than Railway Systems.</i>					
1. Number due to:—					
(a) Campers and Travellers, Class A fires .....	.....	.....	.....	.....	.....
(a) Campers and Travellers, Class B fires	3	1	1	1	6
(b) Settlers, Class A fires ....	.....	.....	.....	.....	.....
Class B fires ....	.....	.....	.....	1	1
(c) Other known causes, Class A fires .....	.....	.....	1	.....	1
(c) Other known causes, Class B fires	2	.....	.....	.....	2
(d) Total of Class A fires .....	.....	.....	1	.....	1
Total of Class B fires	5	1	1	2	9
Total of other known causes	5	1	2	2	10
2. Areas burned:					
(a) Young forest growth ....	.....	.....	.....	.....	.....
(b) Timber land	3	.....	.....	.....	3
(c) Slashing or old burn	1,053 $\frac{1}{2}$	.....	.....	25	1,078 $\frac{1}{2}$
(d) Other classes of land .....	.....	$\frac{1}{4}$	1	1 $\frac{1}{2}$	2 $\frac{3}{4}$
(e) Total	1,056 $\frac{1}{2}$	$\frac{1}{4}$	1	26 $\frac{1}{2}$	1,084 $\frac{1}{4}$
3. Value of property destroyed:					
(a) Young forest growth	\$100 00	.....	.....	.....	\$100 00
(b) Standing timber	65 00	.....	.....	.....	65 00
(c) Forest products .....	.....	.....	.....	.....	.....
(d) Other property .....	.....	.....	.....	.....	.....
(e) Total	\$165 00	.....	.....	.....	\$165 00

*Class A represents fires of less than one-quarter acre in extent.

†Class B represents fires of one-quarter acre and over.

STATISTICAL REPORT OF FIRES ORIGINATING WITHIN 300 FEET OF RAILWAY LINES
IN ONTARIO, ETC.—Continued.

	C. N. R.	G. T. R.	C. P. R.	A. C.	Totals
<i>(c) Fires of Unknown Origin:</i>					
1. Number:—					
(a) Total of Class A fires	2	1	.....	.....	3
(b) Total of Class B fires	9	.....	6	.....	15
(c) Total of all unknown fires	11	1	6	.....	18
2. Areas burned:					
(a) Young forest growth	40	.....	5	.....	45
(b) Timber land .....	.....	.....	1	.....	1
(c) Slashing or old burn	56½	.....	15	.....	71½
(d) Other classes of land	11½	½	5½	.....	16¾
(e) Total	107¾	½	26½	.....	134¾
3. Value of property destroyed:					
(a) Young forest growth	\$20 00	.....	\$5 00	.....	\$25 00
(b) Standing timber .....	.....	.....	10 00	.....	10 00
(c) Forest products	90 00	.....	.....	.....	90 00
(d) Other property	404 00	.....	.....	.....	404 00
(e) Total	\$514 00	.....	\$15 00	.....	\$529 00
<i>(d) Grand Totals for all Causes:—</i>					
1. Number:—					
(a) Total of all Class A fires..	6	9	3	.....	18
(b) Total of all Class B fires..	73	14	38	3	128
(c) Total of all fires reported.	79	23	41	3	146
2. Areas burned:					
(a) Young forest growth	401	26	129	.....	556
(b) Timber land	549½	.....	130	.....	679½
(c) Slashing or old burn	1,967½	164¾	551	30	2,713
(d) Other classes of land	52¾	50¾	51¾	1½	155¾
(e) Total	2,969¾	241½	861½	31½	4,103¾
3. Value of property destroyed:					
(a) Young forest growth	\$595 50	\$41 00	\$174 50	.....	\$811 00
(b) Standing timber	787 00	.....	562 50	.....	1,349 50
(c) Forest products	108 75	.....	.....	.....	108 75
(d) Other property	1,026 50	5 00	138 65	.....	1,170 15
(e) Total	\$2,517 75	\$46 00	\$875 65	.....	\$3,439 40

REPORT

OF THE

Minister of Lands, Forests and Mines

OF THE

PROVINCE OF ONTARIO

For the Year Ending 31st October

1917

PRINTED BY ORDER OF
THE LEGISLATIVE ASSEMBLY OF ONTARIO



TORONTO:

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Bridal Veil Falls at Kagawong, Manitoulin Island, on the highway between
Little Current and Gore Bay.

Report of the Minister of Lands, Forests and Mines of the Province of Ontario

For the Year Ending 31st October, 1917

To His Honour the Lieutenant-Governor of the Province of Ontario.

MAY IT PLEASE YOUR HONOUR:

I have the honour to submit for the information of your Honour and the Legislative Assembly a report for the fiscal year ending 31st October, 1917, of the management of the Crown Lands of the Province.

CLERGY LANDS.

The collection on account of Clergy Lands was \$976.78. No land was disposed of during the year. (See Appendix No. 4, page 9.)

COMMON SCHOOL LANDS.

The collection on account of former sales was \$3,333.59. (See Appendix No. 4, page 9.)

UNIVERSITY LANDS.

The area of these lands sold during the year was 2,074.73 acres for \$1,802.37. The collection on account of these and former sales was \$2,598.91. (See Appendix No. 3, page 8.)

CROWN LANDS.

There was sold during the year for agricultural and town site areas 109,303.53 acres for \$78,105.76. The collection on account of these and former sales was \$63,079.87. There was sold for mining purposes 20,154.31 acres for \$52,985.64. There was collected on account of these and former sales \$57,054.50.

There was leased for mining purposes 4,962.29 acres for \$4,722.44. There was collected on account of these leases and those of former years \$16,884.67. There was leased of Crown lands an area of 29,068.88 acres for \$3,245.09. There was collected on account of these and the leases of former years \$62,845.01.

The total area of Crown lands disposed of by sale and lease during the year was 165,628.06 acres for a value of \$140,948.30, as compared with 133,447.01 acres sold and leased in 1915 for \$113,397.18. The total collection on account of the sales, leases, etc., was \$208,551.69. (See Appendix No. 3, page 8.)

SALES.

During the fiscal year ending 31st October, 1917, there were disposed of for settlement purposes under Part I, of the *Public Lands Act*, approximately 104,000 acres, an area slightly in excess of the previous year. The number securing farms in Northern Ontario throughout the Temiskaming and Hearst Sections was, as might be expected, somewhat less than the preceding period. When the war conditions are considered and the labour and industrial situation is taken into account, with the demand for the application of productive forces apart from the farm and field, it is a source of gratification to find that over 650 new land seekers purchased farms in Northern Ontario in the past year. With immigration inactivity the source of supply for colonists must necessarily be very largely, if not wholly, our own Province, and with this limited field before us it cannot be reasonably expected that land settlement will, during the progress of hostilities, attain anything like the standard it should reach in normal times. The universal appeal on the part of governments and astute economists throughout the British Empire has, undoubtedly, set many thinking and urged numbers to seriously consider the necessity of trekking back to the land.

Hundreds of Northern Ontario settlers are serving their country at the front, and many have already paid the supreme sacrifice. The Department has, since the outbreak of the Great War, extended to the enlisted soldier protection against the jumping of his claim, and will, on his return, render him every opportunity of meeting the necessary requirements incidental to acquiring absolute title to his land.

For the first time in its history the annual report contains in detailed form a statement showing the different land agencies throughout the Province, with the townships comprising each and the number of land transactions recorded in townships other than Free Grant. A cursory glance will disclose the number of sales, patents, etc., in the respective townships and hereafter the public will have ready access to this information, as it has always had to similar information in respect of Free Grant operations. With a view of checking up spurious land holders, who pose as bona fide settlers and of eliminating them to make way for active farmers, the Department made a special examination of some of the more important townships on the Transcontinental Railway. This resulted in cancelling a number of claims and withdrawing from further sale the townships of Calder, Shackleton, Eilber, Fournier and Kendal. These areas may later on be utilized in dealing with a further development of the Returned Soldiers' Scheme. (See Appendix No. 15.)

Consideration has been given to the question of more carefully scrutinizing the class of individuals seeking land.

In the sale or allocation of Crown Lands of the Province each applicant has always been required, preliminary to being eligible for land, to make an affidavit subscribing to certain statements as to his age, his desire to become a settler, and his intentions of performing the settlement duties as prescribed by law; but the would-be settler has not been called upon heretofore to state his birth-place, his nationality or his intentions to become a British subject, if not already one; nor has any provision in the past been made requiring a declaration of obedience to all the laws in force in the Province, both Dominion and Provincial.

In the absence of such data as implied in the last mentioned requirements, it has been impossible to keep fully seized in each case of important facts as respects the individual applicant, whose desirability as a settler is most essential.

For the purpose of securing and maintaining a desirable class of settlers on the Crown Lands of the Province and of being fully apprised of the nationality and law-abiding intentions of would-be locatees, and, furthermore, with a view of aiding and urging a win-the-war policy, and at the same time promoting the cause of greater production, certain detailed information, in addition to that heretofore furnished by applicants, will hereafter be required.

Also for the purpose of more effectively discouraging and preventing "squatting" or unauthorized possession of Crown Lands, and of more readily enforcing the laws and regulations as regards land settlement, it was deemed expedient that individual applicants should be made to realize the importance and necessity of faithfully meeting their obligations, both to the Province of Ontario and the Dominion of Canada, and should be required to subscribe to adequate promises incidental to being eligible to purchase or locate lands.

Applicants from this time on must state their nationality, and if not British, promise to take steps to become naturalized and to obey unreservedly all the laws and regulations, both of the Dominion of Canada and Province of Ontario, under the penalty of forfeiting all rights in or to the land or money paid on account of same.

RANCHING LEASES, LICENSES, ETC.

While only one ranching lease of any size was issued throughout the year, inquiries continue to reach the Department from many quarters as to grazing possibilities. The importance and necessity of increasing stock production has given an impetus to the cattle and sheep raising industry, and with an annual rental of only five cents an acre per annum and easy conditions as to stocking offered by the Province of Ontario, substantial development in this business should be looked for. While no technical attempt has yet been made to segregate the various grazing areas from those that are primarily agricultural, etc., the Department holds in readiness for the service of those likely to be interested in promoting the cause of ranching on Crown areas, certain information preliminary to enabling would-be ranchers going personally over areas and making a selection on their own behalf.

In addition to the one grazing lease there were twenty-three Crown Leases issued during the year for water power and other purposes.

Licenses of Occupation to the number of fifty-three were issued and these covered for the most part authority to occupy mining claims although other purposes were represented: mill sites, water lots, power lines, ranching, public sites, water mains and fur farms. These licenses are made subject to the pleasure of the Crown and thus their elasticity is ample protection to the public interests. For the rights to secure sand and gravel, licenses to the number of twenty-two were issued during the year.

Under Appendix No. 8 may be seen a statement of all the instruments including patents, etc., issued for the entire fiscal year.

FREE GRANTS.

A slight reduction is found in the number of Free Grant locations carried out for the fiscal year ending October 31st, 1917; the number of locatees being 610 for an area of 78,192 acres, while 620 secured land in 1916 covering 85,139 acres. There were 147 locatees who availed themselves of the statutory privilege to pur-

chase additional areas and in this way obtained 6,210 acres; last year 155 purchased for 5,191 acres, so that the average parcel purchased during the past year is somewhat larger.

Certain locatees, numbering 217, for good and sufficient reasons, were allowed to sell their improvements and assign their locations, their assignees succeeding to their rights and obligations.

In Free Grant townships 449 patents were issued to parties, the great majority of whom were actual settlers who had completed their residence and other settlement duties. The other patentees were those who had acquired title for summer resort purposes.

No new townships were placed on the market during the year. Generally speaking the transactions in respect of Free Grant lands and Homesteading were practically the same as in the preceding year, although the numbers seeking free homesteads have very naturally decreased and this is borne out by the figures as compiled in detail under Appendix No. 14.

The obvious lull is due partly to war conditions and partly also to the gradual lessening of ready accessible, arable Free Grant lands. The old sections have been largely sought in the past and, of the Free Grant lands now open, only a small percentage of the first-class farming areas remains. In the earlier development of land settlement the Free Grant sections were eagerly seized upon, and in this way practically all the Rainy River Valley has been settled as well as Thunder Bay District, and a goodly proportion of the agricultural sections of Kenora. The fact that within recent years the new townships opened have been in the Great Clay Belt and are subject to Sale Regulations, has noticeably affected the tabulated results in Free Grants. Moreover, in 1915 several townships in the Sudbury section were withdrawn because of their inclusion in the sulphur area.

With the older arable portions of townships cruised and well settled, with no new lands being opened for Free Grants, and with the standstill condition of immigration and other war tendencies, it is not unreasonable to presume that for the continuance of the war, at least, there will be no appreciable increase in the number of Free Grant settlers.

MILITARY GRANTS.

The total number of Military Certificates issued to date, under the Veterans Land Grant Act, 1 Edw. VII, Cap. 6, and amendments thereto, is 13,998. During the year 96 letters were received from men or from the next of kin of veterans who had served on the frontier during the Fenian Raid, but had only now heard of this grant and asked for application forms. As the time for receiving these applications expired on 30th September, 1908, these application forms could not be sent to them.

During the year there have been 87 certificates located covering 13,986 acres in the townships open for veterans, making in all a total of 8,261 certificates located.

There were 3 certificates surrendered to the Crown for the \$50.00 commutation money; this makes a total of 3,257 certificates surrendered.

In 14 cases the certificates have been surrendered and applied in payment of lands purchased from the Crown, covering in all 2,240 acres, making a total of 774 certificates that have been applied in this manner.

During the year there have been 158 patents issued for lands located by veterans, making a total of 7,222 thus disposed of.

The total number, therefore, of certificates that have now been redeemed is 12,355, leaving 1,643 still outstanding.

Under the Act 1st Edw. VII, Cap. 6, and amendments thereto covering these grants it is necessary for all locatees of the lands granted under this Act to apply for their patents for such land before ten years have expired from date of location. If this application for patent is not made within the ten years then the land comes under the settlement regulations, and unless the settlement duties are proceeded with, the locations are liable to cancellation. Previous to the expiration of the ten years after location, the Department has sent a notice to each veteran who should apply for his patent stating this fact, and in this manner have saved many of the locations from becoming subject to the settlement duties. See Appendix No. 11, page 53.

FINANCIAL ASSISTANCE TO SETTLERS.

Since August 12th, 1916, 1,238 applications for loans have been dealt with by the Settlers' Loan Commissioner. Loans amounting to \$383,968.57 have been made.

There is no doubt as to the benefit which has been derived by the settlers from the advances which have been made by the Department. In many cases reports have come to the Department of settlers being enabled to remain on their clearings and devote their whole time to work on their holdings, securing results that otherwise they would have been unable to accomplish.

Production in Northern Ontario during the coming season will clearly demonstrate the benefits derived from the loans which have been made.

For particulars *re* loans refer to Appendix 28.

THE MINING INDUSTRY.

The annual reports of the Bureau of Mines deal fully with the mining industry of the Province, and it is, therefore unnecessary to go into detail on this subject here. Statistics of production of the metalliferous mines and works of Ontario for the nine months ending 30th September, 1917, have been collected by the Bureau and may, however, be given. The metallic output for the calendar year may be closely approximated from these figures. The value of the mineral production of the Province is now upwards of sixty-five millions of dollars per annum, and Ontario easily leads all the other Provinces in this branch of industrial activity. The steady growth of mining in Northern Ontario, by providing a ready home market for farm products, is proving, and will continue to prove, one of the chief factors in the settlement and colonization of the agricultural areas of the Crown domain.

The table is as follows, and for purposes of comparison, figures for the corresponding period of 1916 are also given:

Notwithstanding the falling off in the output of gold, silver and copper, the aggregate value for the nine months was some \$2,000,000 more than for the same

period in 1916. Increased prices for silver, copper and nickel are largely responsible for this increase:

		Quantity.		Value \$	
		1916	1917	1916	1917
Gold.....	ounces	363,955	343,490	7,513,734	6,754,535
Silver.....	"	16,203,091	15,236,002	9,750,040	12,001,875
Cobalt (metallic).....	lbs.	172,055	295,866	146,467	433,739
Nickel.....	"	17,435	166,921	7,618	67,499
Nickel (oxide).....	"	54,152	10,831	6,381	3,025
Cobalt.....	"	378,732	276,769	231,947	323,162
Other Cobalt and Nickel com- pounds.....	"	57,026	276,217	22,890	30,025
Molybdenite.....	"	15,845	65,827	15,845	83,550
Copper ore.....	tons	1,715	2,658	21,685	33,419
Nickel in matte.....	"	31,046	31,064	15,523,000	15,532,000
Copper in matte.....	"	16,989	15,928	6,285,930	6,371,200
Iron ore (exported).....	"	.....	98,757	.....	412,401
Pig Iron from domestic ore.....	"	.....	48,820	.....	936,118
Lead.....	"	.....	540	.....	136,948
Total.....		.....	.....	.....	43,119,496

Gold.—Of the total production, the Hollinger mine yielded 161,702 ounces; McIntyre, 59,779 ounces; and Dome, 58,978. Gold being the standard of value, and having a fixed price, was the only metal which did not share in the general increase of prices. Indeed, the high price of labour and supplies have, for the time being, lowered the rate of expansion for this branch of the industry. The output for the first nine months of this year was some 20,000 ounces less than for the corresponding period of 1916.

Evidence accumulates that the gold resources of Northern Ontario are extensive. Developments at Porcupine have been satisfactory, and Kirkland Lake shows signs of being a good second. A satisfactory feature is that the newer gold camps are scattered over a wide area of territory.

Silver.—The average price of silver was 79.758 cents—the low being 71.75 on March 27th, and the high 108.50 on September 25th. The following mines were the leading shippers: Mining Corporations of Canada, 3,831,211 ounces; Nipissing, 2,839,462 ounces; Kerr Lake, 1,708,921 ounces; Coniagas, 976,315 ounces; O'Brien, 925,000 ounces; McKinley-Darragh-Savage, 775,566 ounces; Miller Lake O'Brien, 757,132 ounces.

Nickel and Copper.—Both these metals have risen in price, and are valued in these statistics at 25 cents and 20 cents per pound, respectively, for the metallic contents of the mattes produced. Nickel is quoted at 50 to 55 cents per pound, and the United States Government has now fixed the price of copper at 23½ cents per pound. The mines of Sudbury are now, and have been for some time, working at maximum capacity. The nickel contents of the mattes for the nine months of 1917 were a little larger than for the same period in 1916, but the copper contents were about 1,000 tons lower. The International Nickel Company's new refinery at Port Colborne is well under way, and is expected to be turning out refined nickel before next spring.

Iron Ore and Pig Iron.—In addition to exported ore, 138,808 tons were shipped to Ontario smelters. Of the total of 983,321 tons of ore smelted, only 93,536 tons, or 9.5 per cent., were Ontario ore. The total pig iron produced was 513,232 tons, worth \$9,841,438 as compared with 501,410 tons, worth \$6,686,965 in 1916 for the corresponding period. This shows an advance of nearly 50 per cent. in the value of pig iron.

COLLECTIONS.

The total revenue of the Department from all sources was \$3,579,196.06. Of this \$63,079.87 came from agricultural lands and town sites; mining lands \$57,054.50; mining and crown leases \$80,544.18; miners' licenses, permits and recording fees \$62,256.41; supplementary revenue tax \$1,557,543.37. From woods and forests the revenue was \$1,695,703.08 made up of the following items, bonus \$640,835.35; timber dues \$832,467.24; ground rent \$100,408.33; transfer fees \$6,665.10; fire protection charge \$115,327.06. (See Appendix No. 4, page 9.)

DISBURSEMENTS.

The total expenditure of the Department for ordinary services was \$903,154.27. Some of the principal items were: Crown Land agents' salaries and disbursements \$16,861.54; homestead inspectors \$16,333.25; Crown timber agents \$32,040.62; wood ranging and estimation of timber \$120,152.20; fire ranging \$337,933.50; forest reserves, fire ranging, etc., Temagami reserve \$39,694.04; Metagami reserve \$8,252.02; Mississauga reserve \$26,854.08; Nipigon reserve \$27,752.36; Eastern reserve \$2,704.17; Sibley reserve \$100.00; mines and mining \$52,578.65; mining records \$25,925.15; surveys \$43,214.75; contingencies, lands and forests \$48,137.30; bureau of mines \$10,362.50.

A further sum of \$88,554.93 was expended under the direction of the Department, distributed as follows: Algonquin Park \$33,623.89; Quetico Provincial Park \$9,056.50; Veteran's Commutation \$150.00; Royal Nickel Commission \$45,721.64. (See Appendices Nos. 5 and 6.)

WOODS AND FORESTS.

The accrued revenue from woods and forests for the year ending 31st October, 1917, amounted to \$1,196,063.45 or \$90,638.39 in excess of previous year.

The revenue collected also shows a satisfactory increase over preceding year, \$1,695,703.08 being collected as against \$1,335,320.78 for year ending 31st October, 1916, an increase of \$360,382.30.

The production of pine timber—saw logs and dimension timber—is nearly one hundred million feet board measure less than that of previous season, and almost two hundred million feet, board measure, less than that for year ending October 31st, 1915. The falling off in production of timber other than pine was not so marked, being only one million four hundred and seventy-seven thousand eight hundred and sixty-three feet, board measure, less than previous year.

While the production of pine timber has steadily declined, shortage of labour, due to the war, has contributed largely to the falling off of the past two years. The lumber firms have experienced great difficulty in manning their camps and in many cases have been forced to lessen the number of camps.

The number of railway ties taken out was more than double the number of cut during previous season; 1,544,826 were taken out as compared with 738,597 in 1916.

Two hundred and twenty-two thousand three hundred and seven cords of pulpwood was cut upon settler's lands during season 1916-17. Total number of cords of pulpwood cut on settler's lands and lands of the Crown, 445,978.

Two hundred and twenty-three thousand six hundred and seventy-one cords of pulpwood was taken off Crown lands, season 1916-17, an increase over previous season of 54,158 cords.

Sales of the Pic River Pulp and Timber Limit and Black Sturgeon Pulp and Timber Limit referred to in 1916 report were carried out, the highest price ever tendered for pulpwood being obtained.

Recently what is known as the Kapuskasing Pulp and Timber Limit was offered for sale. These three limits add 3,594 square miles to the area of pulp lands covered by concessions.

LANDS UNDER LICENSE.

The area under license last year was 16,313 $\frac{3}{4}$ square miles, which was 601 $\frac{1}{2}$ square miles greater than the area under license the previous season.

SOURCES OF REVENUE.

The ground rent received amounted to \$100,408.33, being \$11,190.84 more than in the preceding year.

Six thousand six hundred and sixty-five dollars and ten cents was collected as transfer fees as against \$3,640.00 for 1916.

Licensees and other holders of timber concessions were required, under the terms of the new Regulations, to pay a fire protection charge of \$6.40 per square mile, and the amount received from this source totalled \$115,327.06.

The revenue collected during the year ending October 31st, 1917, was made up as follows:

Timber Dues	\$832,467 24
Bonus	640,835 35
Ground rent	100,408 33
Transfer Fee	6,665 10
Fire Protection	115,327 06
	<hr/>
	\$1,695,703 08

CULLER'S EXAMINATION.

Two Culler's Examinations were held during the year, one at North Bay and the other at Kenora. Eight candidates succeeded in passing the examination and were duly granted certificates authorizing them to act as Cullers.

(For complete list of Cullers see Appendix 12, page 54.)

FIRE RANGING.

Under the legislation passed during the Session of 1917 radical changes were made along the line of forest protection.

The Permit System, relating to the burning of slash by settlers, was inaugurated, 3,486 permits, covering 15,186 acres, being issued during the past season by

members of the fire ranging staff. Generally speaking, the settlers co-operated heartily, and results amply justify the new regulation.

The area protected was divided into thirty-four districts, each in charge of a Chief Ranger. Over the Chief Ranger were three territorial Inspectors, with headquarters at Cochrane, Nipigon and North Bay. The general field work was supervised by a Provincial Superintendent.

The number of rangers was largely increased, owing to the addition of rangers on licensed lands, the introduction of the permit system, and the protection of areas where none had previously existed.

FOREST FIRES.

The weather in the early part of the fire season was dry, and a number of fires of some magnitude occurred in the western part of the Province, fortunately attended by no loss of life. A total of 1,110 fires was reported, the greater number being of small extent. Five hundred and forty-nine of the fires reported were caused by railways—the Canadian Government railways being responsible for 332 of this number. The neglected camp fire was a fruitful source of fires. Only 8 per cent. of the total number of fires was caused by settlers clearing land—an ample justification of the Permit System.

IMPROVEMENT WORK.

During the season 62 Lookout Towers were constructed, 26 Observation points were built, numerous trails were cut and a considerable addition was made to the existing telephone system. Four large storehouses for equipment were built, also 44 rangers' cabins, 3 boathouses, 3 hose houses, and numerous other improvements of a minor nature.

EQUIPMENT.

It was found necessary to add largely to the equipment during the past season. Twenty-eight railway velocipedes were added to the stock and a number of auto-trucks and motor boats were installed where such equipment could be used to best advantage.

FORESTRY.

The work of forest planting is necessarily hampered by the shortage of labour owing to war conditions. Valuable work is, however, being accomplished at the Provincial Forest Station in Norfolk County.

A complete summary of the activities of the Forestry Branch will be found in Appendix 34.

CROWN SURVEYS.

The following surveys of Crown lands have been completed during this year:
Islands in Lake Huron, north of Manitoulin Island, district of Algoma.

Islands in Lake Huron, north of Manitoulin Island, district of Manitoulin.

Islands in Georgian Bay, district of Sudbury.

Part of south boundary and east boundary, Nipigon Forest Reserve, district of Thunder Bay.

Township of Foleyet, district of Sudbury.

Township Muskego, district of Sudbury.

Part of the township of Keith, district of Sudbury.

Survey of outlines of townships of Wickstead, Haig and Farquhar, district of Algoma.

Boundary line between the townships of Gooderham and Kenny, district of Nipissing.

Survey of lakes Mesomikenda and Minisinakawa, district of Sudbury.

Survey of town plot on Bear Island, Timagami Lake, district of Nipissing.

Timber lines in the townships of Ogden, Bristol and Thornloe, district of

Timiskaming.

Timber lines in the township of Notman, district of Nipissing.

Timber lines in the township of Sweeny, district of Sudbury.

See Appendix No. 16, page 76.

For Crown Surveys in progress, see Appendix No. 17, page 77.

MUNICIPAL SURVEYS.

Seven municipalities petitioned for surveys and instructions were given authorizing the same. One of these and four other municipal surveys, for which instructions had previously been given, were confirmed during the year under R.S.O. 1914, Cap. 166, Sections 13 and 14, such surveys being final and conclusive.

The survey of the Toronto and Hamilton Highway, between the westerly limit of the city of Toronto and the westerly limit of the town of Oakville, was also performed under instructions as required by Statute 5, George 5th, Cap. 18, and the boundaries of such portion of the highway as defined by the survey duly confirmed.

Particulars relating to these will be found in Appendices No. 18 and No. 19, pages No. 78 and No. 79.

RETURNED SOLDIERS AND SAILORS—LAND SETTLEMENT.

In the spring of 1917 the Land Settlement Scheme for returned soldiers was put in operation. In adopting the plan of settlement which had been decided upon it was endeavoured to devise a system which would result in placing considerable numbers of returned men on the land in communities, having a common centre, avoiding in large measure the isolation which unfortunately has prevailed in many of the northern districts.

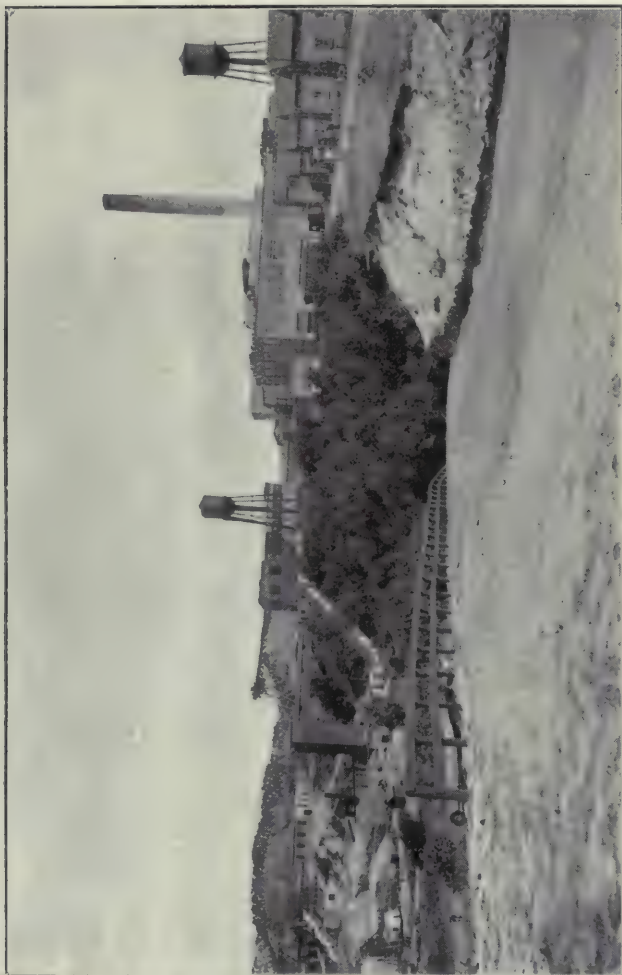
The work of the past year has naturally been largely experimental, but the result, to date, has been sufficiently satisfactory to warrant a very considerable extension of the scheme for the coming season.

Report as to the work that has been accomplished will be found in Appendix No. 35.

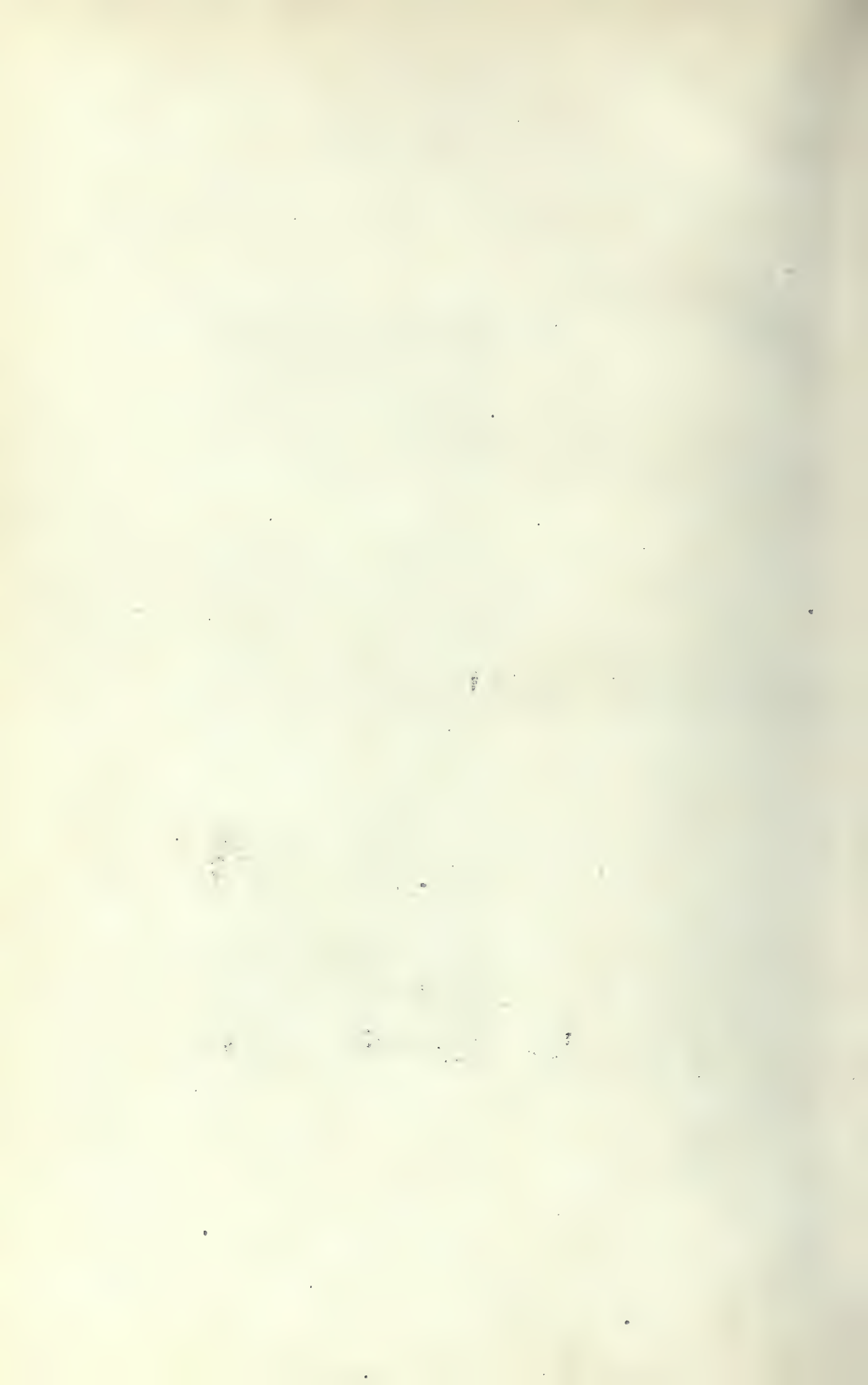
G. H. FERGUSON,

Minister.

Department of Lands, Forests and Mines,
Toronto, October 31st, 1917.



Spanish River Pulp and Paper Mills at Espanola.



APPENDICES

Appendix No. 1.

Return of Officers and Clerks of the Department of Lands, Forests and Mines for the year ending October 31st, 1917.

Branch.	Name.	Designation.	When Appointed.	Salary per annum.	Remarks.
Lands Branch	Hon. G. H. Ferguson.....	Minister	1914, Dec. 22.....	\$6,000 00	
	Albert Grigg	Deputy Minister	1915, Oct. 13.....	4,200 00	
	C. C. Hele	Minister's Secretary and Secretary to Department.....	1912, Jan. 23.....	2,500 00	
	J. Farrington	Clerk	1916, Jan. 6.....	1,200 00	
	A. G. Thompson	do	1909, Mar. 24.....	900 00	
	M. Johnston	Stenographer	1915, Oct. 9.....	750 00	Resigned April 30, 1917.
	J. J. Murphy	Advisory Chief Clerk	1872, May 1.....	2,300 00	
	W. C. Cain	Chief Clerk	1903, Mar. 6.....	2,100 00	
	H. E. Johnston	Clerk of Military Grants	1907, Mar. 13.....	1,750 00	
	W. R. Ledger	Clerk of Sales	1894, Feb. 5.....	1,600 00	
	S. Draper	Clerk of Free Grants	1903, Jan. 1.....	1,500 00	
	S. A. Platt	Clerk	1907, Mar. 13.....	1,150 00	
	F. Lucas	do	1909, Mar. 24.....	1,200 00	
	J. E. Drinkwater	do	1916, May 3.....	1,200 00	
	C. S. Jones	Clerk of Patents	1890, May 22.....	2,050 00	
	W. S. Sutherland	Engrossing Clerk	1902, Jan. 13.....	1,450 00	
	C. E. Burns	Reference Clerk	1900, Apr. 9.....	1,550 00	
	W. Carrell	Engrossing Clerk	1904, Jan. 15.....	1,350 00	
	A. E. Robillard	do	1894, May 8.....	1,100 00	
	A. E. Roe	Clerk of Registers	1909, Mar. 24.....	1,350 00	
	N. MacQueen	Stenographer	1909, Mar. 24.....	800 00	Resigned October 31, 1917.
	M. Bengough	do	1896, Oct. 23.....	800 00	
	J. C. Oram	do	1907, Jan. 16.....	800 00	
	E. F. O'Neill	do	1904, Nov. 9.....	800 00	
	E. G. Halliday	do	1909, Mar. 24.....	800 00	
	B. M. Benson	do	1911, Mar. 3.....	750 00	
	E. Hills	do	1916, May 3.....	750 00	
	G. B. Kirkpatrick	Director	1866, Jan. 30.....	2,700 00	Died August 3, 1917.
	L. V. Rorke	Assistant Director	1909, May 5.....	3,000 00	
	J. Hutcheon	Surveyor and Draughtsman	1913, May 20.....	2,500 00	
	W. F. Lewis	Clerk	1872, Feb. 5.....	1,400 00	

Surveys	D. G. Boyd	Draughtsman	1897, Sept. 27.....	1,750 00
	E. M. Jarvis	Clerk	1904, Oct. 19.....	1,500 00
	J. B. Proctor	do	1897, Jan. 15.....	1,200 00
	B. Rushford	Draughtsman	1912, Oct. 5.....	1,100 00
	F. E. Blanchet	Clerk	1907, Mar. 13.....	1,200 00
	A. Leaman	do	1909, Mar. 24.....	1,200 00
	H. Treeby	Draughtsman	1904, Jan. 13.....	1,350 00
	J. Work	do	1911, Mar. 3.....	1,350 00
	H. M. Kirkland	Stenographer	1904, Nov. 23.....	800 00
	C. O'Connor	do	1911, Mar. 3.....	700 00
Woods and Forests	E. C. Arner	do	1911, Mar. 3.....	700 00
	J. A. G. Crozier	Advisory Chief Clerk	1867, Dec. 1.....	2,300 00
	J. Houser	Chief Clerk	1907, Mar. 13.....	2,000 00
	J. B. Cook	Clerk	1898, Aug. 1.....	1,850 00
	H. Gillard	do	1900, Apr. 9.....	1,600 00
	F. J. Niven	do	1903, Mar. 6.....	1,550 00
	W. F. Trivett	do	1904, Jan. 13.....	1,400 00
	R. H. Hodgson	do	1904, Nov. 23.....	1,300 00
	A. H. O'Neill	do	1909, Mar. 24.....	1,100 00
	G. W. Harris	do	1909, Mar. 24.....	1,100 00
Accounts	N. L. Rogers	do	1911, Nov. 2.....	1,200 00
	S. D. Meeking	do	1910, May 12.....	1,000 00
	E. H. Squire	do	1916, Apr. 6.....	1,000 00
	E. H. Telfer	do	1916, Apr. 6.....	900 00
	C. Rowland	Stenographer	1915, Mar. 23.....	800 00
	W. A. Fleming	do	1915, Feb. 16.....	700 00
	M. E. Bliss	do	1909, Sept. 1.....	800 00
	H. Canton	do	1915, Oct. 9.....	700 00
	D. G. Ross	Accountant	1861, Apr. 15.....	2,650 00
	H. M. Lount	Clerk	1904, Jan. 13.....	1,650 00
Forestry	C. J. Clarke	do	1907, Mar. 13.....	1,250 00
	R. Gordon	do	1913, Apr. 20.....	1,100 00
	W. A. Burritt	do	1908, Apr. 8.....	1,250 00
	C. Bowland	Clerk and Stenographer	1911, Mar. 3.....	800 00
	E. J. Zavitz	Provincial Forester	1912, Nov. 7.....	3,500 00
	J. H. White	Assistant Provincial Forester	1917, Apr. 1.....	3,000 00
	F. S. Newman	Forester	1913, Sept. 22.....	1,700 00
	J. Bald	Stenographer	1914, Oct. 28.....	700 00

Appendix No. 1.—Concluded.

Return of Officers and Clerks of the Department of Lands, Forests and Mines for the year ending October 31st, 1917.

Branch.	Name.	Designation.	When Appointed.	Salary per annum.	Remarks.
Colonization	H. A. Macdonell	Director	1912, Feb. 2	2,450 00	
	J. Thompson	Clerk	1906, Jan. 24	1,800 00	Died September 21, 1917.
	J. Argue	do	1908, Apr. 8	1,600 00	
	R. A. Jones	do	1909, Mar. 8	1,500 00	
	C. W. Garthwaite	do	1910, Nov. 4	1,200 00	
	H. Tutt	do	1911, Mar. 30	1,100 00	
	S. O. Dennis	Clerk and Stenographer	1910, Nov. 4	800 00	
	R. Duggan	Stenographer	1910, Feb. 4	800 00	
Record Branch	F. R. Dunlop	do	1912, Dec. 17	725 00	
	B. McDonald	do	1911, Mar. 30	800 00	
	S. K. Burdin	Chief Clerk	1916, Apr. 6	2,400 00	
	C. Dies	Clerk	1907, Mar. 13	1,350 00	
	A. P. Saunders	do	1913, Apr. 30	1,100 00	
	C. W. St. John	do	1910, Apr. 14	1,100 00	
	A. Ferguson	do	1916, Apr. 6	1,100 00	
	W. B. Baines	do	1912, Oct. 5	1,050 00	
Bureau of Mines	F. Samuels	do	1909, Mar. 24	1,025 00	
	H. Brophy	Mailing Clerk	1898, Oct. 1	1,000 00	
	T. W. Gibson	Deputy Minister	1891, June 19	4,200 00	
	R. D. Fisher	Secretary	1907, Mar. 13	1,600 00	
	D. H. Barr	Clerk	1907, Mar. 13	1,350 00	
	F. L. Godson	do	1915, June 18	1,000 00	
	W. Lemoine	do	1908, Apr. 8	1,250 00	
	Anne Moffatt	do	1901, Mar. 1	1,200 00	
D. GEO. ROSS, Accountant.	A. G. Scovell	do	1909, Mar. 24	1,250 00	
	Ethel Craig	Clerk and Stenographer	1906, May 16	800 00	Resigned April 30, 1917.
	F. McDougall	do	1907, Mar. 13	800 00	Resigned July 28, 1917.
	J. L. McNaughton	do	1909, Mar. 24	800 00	
	H. W. Batchelor	Stenographer	1911, Dec. 19	750 00	

ALBERT GRIGG,
Deputy Minister of Lands and Forests.

Appendix No. 2.
List of Agents for the year ending October 31st, 1917.

Name.	Post office address	District or County.	Date of appointment.	Salary per annum.	Remarks.
<i>Land Agents.</i>					
Anderson, T. V.	Hearst.....	Part District of Algoma	1913, May 9	\$ 600 00	
Arthurs, E.	Espanola Mills	do do	1915, May 7	200 00	
Baker, R. H.	Minden	Part of Victoria	1907, Oct. 1	350 00	
Bolger, J. W.	New Liskeard.....	Lake Temiskaming, District of Nipissing	1913, July 17	900 00	
Both, C.	Denbigh.....	Part of Frontenac and Addington	1905, Oct. 20	200 00	
Brown, John	Markstay.....	Part of District of Nipissing and Sudbury	1916, June 27	500 00	
Brown, J. B.	Bracebridge.....	Muskoka District	1905, July 28		
Burrows, W. A.	Port Arthur.....	Part District of Thunder Bay	1912, Jan. 30	1,000 00	For salary see Homestead Inspectors.
Cameron, W.	Stratton Station.....	do do Rainy River	1911, April 27	500 00	
Campbell, I. M.	Parry Sound.....	do do Parry Sound	1914, Nov. 12	500 00	
Dempsey, S. J.	Cochrane.....	do do Nipissing	1911, Feb. 9	1,000 00	
Dodds, T.	Thessalon.....	do do Algoma	1915, May 4	500 00	
Douglas, W. J.	Maynooth.....	do Hastings	1912, June 12	500 00	
Ellis, H. J.	Powassan.....	do District of Parry Sound	1909, May 21	500 00	
Fletcher, H. H.	Massey	do do Sudbury	1916, May 3	500 00	
Freeborn, Dr. J. S.	Magnetawan.....	do do Parry Sound	1905, Nov. 10	500 00	
Gibson, J. E.	Dryden.....	District of Rainy River	1914, Nov. 20	600 00	
Ginn, F. E.	Matheson.....	Part District of Nipissing	1912, Mar. 20	800 00	
Hales, W.	Apsley.....	do County of Peterborough	1911, July 20	250 00	
Hollands, C. J.	Fort Frances.....	do Township of Alberta and part District of Rainy River	1892, Oct. 12	300 00	
Jenkin, W.	Emisdale.....	do District of Parry Sound	1908, July 29	500 00	
McFayden, A.	Emo.....	do do Rainy River	1905, Sept. 8	500 00	
MacLennan, J. K.	Sudbury.....	do do Sudbury	1905, July 3	700 00	
Noble, E.	Sault Ste. Marie.....	do do Algoma	1913, Feb. 1	300 00	
Parsons, W. J.	North Bay.....	do do Nipissing	1908, April 8	600 00	
Philton, J. A.	Sturgeon Falls.....	do do do	1907, Sept. 13	500 00	
Prinall, A.	Wilno.....	do of Renfrew	1905, July 12	500 00	
Small, R.	Mattawa.....	do District of Nipissing	1910, June 30	500 00	
Spry, W. L.	Kenora.....	do do Rainy River	1909, Sept. 21	600 00	Also Mining Recorder.
Teasdale, R. A.	Massey.....	do do Sudbury	1917, July 1	500 00	
Watt, F.	Pembroke.....	Part of Renfrew	1913, May 28	300 00	

Appendix No. 2.—Continued.
List of Agents for the year ending October 31st, 1917.

Name.	Post office address.	District or County.	Date of appointment.	Salary per annum.	Remarks.
<i>Land Agents.—Concluded.</i>					
Whybourne, W. E.	Marksville.	Part of St. Joseph Island	1905, April 7	300 00	
Wilson, A. N.	Kinmount.	Part of Peterborough	1915, June 1	175 00	
Woollings, J.	Englehart.	Part of District of Nipissing	1908, June 30	700 00	
<i>Homestead Inspectors.</i>					
Barr, J.	Fort Frances.	District of Rainy River	1906, Nov. 23	1,200 00	
Bastien, J. A.	Chelmsford.	W. part of Sudbury District	1913, May 2	900 00	
Brown, J. B.	Bracebridge.	Muskoka District	1905, July 28	1,000 00	Also Crown Land Agent.
Burnes, C. W.	South River.	Parry Sound District	1905, Nov. 15	1,000 00	
Cragg, W. V.	New Liskeard.	S. part of Temiskaming District	1913, Mar. 27	1,200 00	
Dean, T.	Sault Ste. Marie.	Algoma District	1908, July 29	800 00	
Hughes, T.	Murillo.	Thunder Bay District	1908, July 20	1,000 00	
Poole, E. G.	Porquois Jet.	Part Temiskaming District	1916, Sept. 12	1,200 00	Resigned January 30th, 1917.
Queenneville, I.	Sturgeon Falls.	E. part Sudbury and W. part Algoma Districts	1906, May 7	900 00	
Smith, D.	Cochrane.	N. part Temiskaming District	1912, April 16	1,500 00	
Watson, T. P.	Englehart.	Centre part of Temiskaming District	1905, May 10	1,200 00	
Wigle, R. G.	Dryden.	Kenora District	1914, May 27	1,200 00	
<i>Timber Agents.</i>					
Bremner, G.	Cochrane.	Part Temiskaming and Algoma Districts.	1913, May 20	1,800 00	
Christie, W. P.	Parry Sound.	Part Parry Sound and Muskoka Districts	1903, Dec. 4	1,600 00	
Darby, E. J.	Ottawa.	Part Ottawa District	1889, July 26	1,500 00	
Hawkins, S. J.	Webbwood.	Part Algoma and Sudbury Districts	1905, Aug. 16	1,500 00	
Henderson, C.	Sudbury.	do	1902, Jan. 1	2,000 00	
Huckson, A. H.	Sault Ste. Marie.	Part District of Algoma	1914, April 1	1,600 00	
Johnson, S. M.	Arnprior.	Part Ottawa and Parry Sound Districts	1907, Jan. 11	1,600 00	
MacDonald, S. C.	New Liskeard.	Part Temiskaming District	1907, June 21	1,700 00	
Margach, W.	Kenora.	Kenora District	1889, May 16	1,600 00	
McDonald, H.	Thessalon.	Part District of Algoma	1905, April 20	1,500 00	
McDougall, J. T.	North Bay.	Nipissing and part Sudbury District	1908, July 8	1,700 00	

Oliver, J. A.	Port Arthur.....	Thunder Bay District	1905, Sept. 30	1,700 00
Stevenson, A.	Peterborough.....	Belleville	1905, Oct. 4	1,500 00
Watts, Geo.	Fort Frances.....	Rainy River District	1910, April 19	1,500 00
Wood, W. G. A.	Porcupine.....	Porcupine District	1917, Feb. 28	1,200 00
<i>Mining Recorders.</i>				
Browning, A. J.	Elk Lake.....	Montreal River Mining Division	1913, July 15	1,100 00
Campbell, C. A.	Sudbury.....	Sudbury Mining Division	1910, Jan. 6	900 00
Gauthier, G. H.	Porcupine.....	Porcupine Mining Division	1912, July 16	1,500 00
Hough, J. A.	Matheson.....	Larder Lake Mining Division	1907, May 22	1,200 00
Miller, N.	Sault Ste. Marie..	Sault Ste. Marie Mining Division	1915, June 9	1,000 00
Morgan, J. W.	Port Arthur.....	Port Arthur Mining Division	1906, Dec. 28	1,000 00
Morgan, M. R.	Tashota.....	Kowkash Mining Division	1916, Mar. 10	900 00
McAulay, N. J.	Haileybury.....	Temiskaming Mining Division	1915, May 8	1,800 00
McQuire, H. F.	Parry Sound.....	Parry Sound Mining Division	1906, Sept. 26	500 0
Sheppard, H. E.	Elk Lake.....	Gowganda Mining Division	1909, Feb. 10	1,000 00
Skill, A.	Elk Lake.....	Montreal River Mining Division	1909, April 1	1,200 00
Spry, W. L.	Kenora.....	Kenora Mining Division	1909, Sept. 21	750 00
<i>Emigration Agents.</i>				
Reid, R.	London.....	England	1913, Feb. 7	5,000 00
Clark, J. M.	London.....	do	1913, Mar. 17	1,800 00

Killed in action, October 29th, 1917.

D. GEO. ROSS,
Accountant.

ALBERT GRIGG,
Deputy Minister of Lands and Forests.

Appendix No. 3.

Statement of Lands Sold and Leased. Amount of Sales and Leases and Amount of Collections for the year ending October 31st, 1917.

Service.	Acres sold and leased.	Amount of sales and leases.	Collection on sales and leases.
<i>Lands Sold:</i>		\$ c.	\$ c.
Agricultural and Townsites.....	109,303.53	78,105 76	63,079 87
Mining	20,154.31	52,985 64	57,054 50
Clergy Lands			976 78
Common School Lands			3,333 59
Grammar School Lands			963 86
University Lands	2,074.73	1,802 37	2,598 91
<i>Lands Leased:</i>			
Mining	4,962.29	4,722 44	16,884 67
Crown	29,068.88	3,245 09	62,845 01
Temagami	64.32	87 00	814 50
	165,628.06	140,948 30	208,551 69

D. GEO. ROSS,
Accountant.

ALBERT GRIGG,
Deputy Minister of Lands and Forests.

Appendix No. 4.

Statement of Revenue of the Department of Lands, Forests and Mines for the year ending
October 31st, 1917.

Service.	\$	c.	\$	c.	\$	c.
LAND COLLECTIONS.						
<i>Crown Lands:</i>						
Agricultural	58,353	25				
Townsites	4,726	62				
			63,079	87		
Mining Sales			57,054	50		
Clergy Lands.....	976	78				
Common School Lands	3,333	59				
Grammar School Lands	963	86				
University Lands	2,598	91				
			7,873	14		
<i>Rent:</i>						
Mining Leases	16,884	67				
Crown Leases.....	62,845	01				
Temagami Leases.....	814	50				
			80,544	18		
Miners' Licenses	26,732	97				
Permits	850	00				
Recording Fees	34,673	44				
			62,256	41		
<i>Supplementary Revenue:</i>						
Acreeage Tax	14,347	99				
Profit Tax	1,503,967	62				
Gas Tax	39,227	76				
			1,557,543	37		
					1,828,351	47
WOODS AND FORESTS.						
Bonus			640,835	35		
Timber Dues			832,467	24		
Ground Rent			100,408	33		
Transfer Fees			6,665	10		
Fire Protection			115,327	06		
					1,695,703	08
Provincial Assay Fees.....	726	52				
Casual Fees	1,760	89				
Cullers' Fees	112	00				
Forest Reserves Guides' Fees	161	00				
Algonquin Provincial Park.....	5,615	33				
Quetico Provincial Park.....	73	00				
			5,688	33		
					8,448	74
REFUNDS.						
Fire Ranging			24,486	35		
Wood Ranging			19,184	93		
Algonquin Park Cleaning Right-of-Way.....			2,549	60		
Colonization			274	87		
Agents' Salaries			105	00		
Contingencies			60	52		
Mines and Mining			27	50		
Bureau of Mines			4	00		
					46,692	77
					3,579,196	06

D. GEO. ROSS,
Accountant.

ALBERT GRIGG,
Deputy Minister of Lands and Forests.

Appendix No. 5.

Statement of Receipts of the Department of Lands, Forests and Mines for the year ending October 31st, 1917, which are considered as Special Funds.

Service.	\$ c.	\$ c.
<i>Clergy Lands.</i>		
Principal	413 45	
Interest	563 33	976 78
<i>Common School Lands.</i>		
Principal	1,771 35	
Interest	1,562 24	3,333 59
<i>Grammer School Lands.</i>		
Principal	540 96	
Interest	422 90	963 86
<i>University Lands.</i>		
Principal	2,233 40	
Interest	365 51	2,598 91
		<u>\$7,873 14</u>

D. GEO. ROSS,
Accountant.

ALBERT GRIGG,
Deputy Minister of Lands and Forests.

Appendix No. 6.

Statement of Disbursements of the Department of Lands, Forests and Mines for the year ending October 31st, 1917.

Service.	\$ c.	\$ c.	\$ c.
AGENTS' SALARIES AND DISBURSEMENTS.			
<i>Land, \$16,861.54.</i>			
Anderson, T. V.	550 00		
Disbursements	21 00		
		571 00	
Arthurs, E.		200 00	
Baker, R. H.	350 00		
Disbursements	6 59		
		356 59	
Bolger, J. W.	800 00		
Disbursements	42 09		
		842 09	
Both, C.		200 00	
Brown, John	500 00		
Disbursements	4 12		
		504 12	
Burrows, W. A.	850 00		
Disbursements	323 35		
		1,173 35	
Cameron, W.	500 00		
Disbursements	37 00		
		537 00	
Campbell, Miss I. M.	500 00		
Disbursements	15 00		
		515 00	
Dempsay, S. J.	800 00		
Disbursements	96 00		
		896 00	
Dodds, T.	400 00		
Disbursements	15 00		
		415 00	
Douglas, W. J.	500 00		
Disbursements	36 46		
		536 46	
Ellis, H. J.		500 00	
Flesher, H. H.		332 00	
Freeborn, J. S.	500 00		
Disbursements	14 70		
		514 70	
Gibson, J. E.	516 60		
Disbursements	165 15		
		681 75	
Ginn, F. E.	700 00		
Disbursements	222 99		
		922 99	
Hales, W.		250 00	
Hollands, C. J.		300 00	
Jenkin, W.	500 00		
Disbursements	8 35		
		508 35	
Carried forward		10,756 40	

Appendix No. 6.—Continued.

Service.	\$	c.	\$	c.	\$	c.
<i>Brought forward</i>			10,756	40		
AGENTS' SALARIES AND DISBURSEMENTS.— <i>Continued</i>						
<i>Land.—Concluded.</i>						
McFayden, A.	500	00				
Disbursements	42	25				
MacLennan, J. K.			542	25		
			600	00		
Noble, E.			300	00		
Parsons, W. J.	550	00				
Disbursements	24	00				
			574	00		
Philion, J. A.	500	00				
Disbursements	22	32				
			522	32		
Prince, A.	500	00				
Disbursements	22	00				
			522	00		
Small, R.	500	00				
Disbursements	23	00				
			523	00		
Spry, W. L.	500	00				
Disbursements	393	40				
			893	40		
Teasdale, R. A.			167	67		
Watt, F.			300	00		
Whybourne, W. E.	275	00				
Disbursements	3	50				
			278	50		
Wilson, A. N.	175	00				
Disbursements	13	00				
			188	00		
Woollings, J.	650	00				
Disbursements	44	00				
			694	00		
<i>Homestead Inspectors, \$16,333.25.</i>						
Barr, J.	1,200	00				
Disbursements	1,095	90				
			2,295	90		
Bastien, J. A.	750	00				
Disbursements	261	66				
			1,011	66		
Brown, J. B.	1,000	00				
Disbursements	236	65				
			1,236	65		
Burnes, C. W.	950	00				
Disbursements	257	99				
			1,207	99		
Cragg, W. V.	1,200	00				
Disbursements	201	65				
			1,401	65		
Dean, T.	700	00				
Disbursements	82	10				
			782	10		
<i>Carried forward</i>			24,797	49		

Appendix No. 6.—Continued.

Service.	\$ c.	\$ c.	\$ c.
<i>Brought forward</i>		24,797 49	
<i>AGENTS' SALARIES AND DISBURSEMENTS.—Continued</i>			
<i>Homestead Inspectors.—Concluded.</i>			
Hughes, T.	900 00		
Disbursements	609 10	1,509 10	
Poole, E. G.		300 00	
Quenneville, I.	725 00		
Disbursements	459 45	1,184 45	
Smith, D.	1,250 00		
Disbursements	886 15	2,136 15	
Watson, T. P.	1,100 00		
Disbursements	486 90	1,586 90	
Wigle, R. G.	1,100 00		
Disbursements	580 70	1,680 70	
<i>Timber, \$32,040.62.</i>			
Bremner, G.	1,499 59		
Disbursements	604 10	2,103 69	
Christie, W. P.	1,600 00		
Disbursements	241 71	1,841 71	
Hawkins, S. J.	1,500 00		
Disbursements	417 54	1,917 54	
Henderson, C.	1,900 00		
Webster, W. A., Assistant	961 00		
Disbursements	399 00	3,260 00	
Huckson, A. H.	1,512 00		
Disbursements	222 50	1,734 50	
Johnson, S. M.	1,600 00		
Disbursements	131 11	1,731 11	
MacDonald, S. C.	1,608 33		
Disbursements	315 83	1,924 16	
Margach, W.	1,600 00		
Legris, J., Assistant	1,442 00		
Cunningham, E. A., Stenographer	379 50		
Disbursements	1,265 04	4,686 54	
McDonald, H.	1,500 00		
Disbursements	314 97	1,814 97	
McDougall, J. T.	1,650 00		
Disbursements	434 93	2,084 93	
Oliver, J. A.	1,600 00		
Kytoma, M., Stenographer	436 52		
Porter, M., Stenographer	89 99		
Disbursements	682 45	2,808 96	
<i>Carried forward</i>		59,102 90	

Appendix No. 6.—Continued.

Service.	\$ c.	\$ c.	\$ c.
<i>Brought forward</i> .....	.....	59,102 90	
AGENTS' SALARIES AND DISBURSEMENTS.— <i>Concluded</i>			
<i>Timber.—Concluded.</i>			
Stevenson, A.	1,500 00		
Disbursements	471 16	1,971 16	
Watt, G.	1,500 00		
McDonald, A., Assistant	1,338 10		
Disbursements	263 25	3,101 35	
Wood, W. G. A.	800 00		
Disbursements	260 00	1,060 00	
<i>Miscellaneous, \$1,437.10.</i>			
Bilton, G., Caretaker Islands in North and South Crosby		25 00	
Guthrie, W., Caretaker Islands in Devil Lake ..		50 00	
Jamieson, W. K., Caretaker Islands in Dog and Laboria Lakes		50 00	
McArthur, T. A., Inspector of Agencies	675 00		
Disbursements	637 10	1,312 10	
OTTAWA AGENCY.			66,672 51
Darby, E. J., Agent		1,500 00	
Larose, S. C., Clerk		1,000 00	
Rent	700 00		
Disbursements	86 25	786 25	
WOOD RANGING.			3,286 25
Acheson, Ira M.		1,235 00	
Allen, R. A.		705 00	
Arnill, Wm.		1,135 00	
Bailey, Alex.		895 00	
Barrett, Thos.		905 50	
Bates, R.		600 00	
Beaton, C.		445 00	
Bichord, L.		382 50	
Bliss, L. E.	395 00		
Disbursements	45 13	440 13	
Bonhome, S.		193 50	
Bouchard, J.		57 00	
Breman, C.		399 00	
Bromley, T. A.		755 00	
Brown, J. A.		461 00	
Brooks, W. J.		835 00	
Buchan, S.		114 00	
Buchanan, R.		765 00	
Buisson, Wm.		365 00	
Cameron, John K.	205 00		
Disbursements	17 10	222 10	
Carbeil, S.		307 50	
Castonguay, A. C.		1,020 00	
Charlebois, P.		1,014 00	
Chenier, D. A.		1,608 50	
Chenier, G. T.		360 00	
Clairmont, E.		508 00	
Clapson, H.		108 75	
<i>Carried forward</i> .....	.....	15,836 48	69,958 76

Appendix No. 6.—Continued.

Service.	\$ c.	\$ c.	\$ c.
<i>Brought forward</i>		15,836 48	69,958 76
WOOD RANGING.—Continued.			
Clarke, W. R.		38 50	
Close, R. J.		667 25	
Cloud, Wm.		177 00	
Connelly, Dan		1,565 00	
Comer, B. F.		544 00	
Corrigan, R. T.		1,100 00	
Cowchroski, A.		292 50	
Coyne, P.		750 00	
Cross, R. J.		516 00	
Crowley, C.		42 00	
Dawkins, J. J.		44 00	
Dennie, F. J.		450 00	
Dickson, C.		57 00	
Didier, H.		740 00	
Doxse, J. E.		1,070 00	
Dunn, Wm.		78 75	
Dunn, J. F.		705 00	
Durrell, Wm.		945 00	
Duval, C. A.		410 00	
Dyson, I.		159 00	
Eakins, W.		66 00	
Eaton, James		240 00	
Eldridge, R.		448 00	
Enlaw, O.		900 00	
Emond, A.		348 00	
Fairburn, N. H.		755 00	
Ferguson, E. A.		835 00	
Fisher, Geo.		770 00	
Fitzback, J.		207 00	
Fletcher, N.		715 00	
Foster, W. G.		384 00	
Fraser, D.		260 00	
Fraser, W. A.		645 00	
Frechette, O.		42 00	
Ganton, D.		715 00	
Gardner, Wm.		408 00	
Gill, Chas.		480 00	
Hagan, E. G.		885 50	
Haines, B.		504 75	
Hamilton, R.		189 00	
Hart, Isaac		658 00	
Hartley, Chas.	1,177 50		
Disbursements	3 50		
		1,181 00	
Harvey, J.		42 00	
Hauralty, P.		742 25	
Hawkins, Wm.		424 00	
Henderson, Chas.	Disbursements	508 07	
Henderson, John		61 75	
Henderson, A. E.		1,165 00	
Henderson, L. E.		1,195 00	
Hey, Ben		480 00	
Hoff, J. S. M.		829 50	
Hornick, Geo.		57 00	
Huckson, A. H.	Disbursements	1,086 95	
Huckson, E.		979 50	
Hurdman, W. H.		775 00	
Hutton, John		1,130 00	
Jamieson, J.		544 00	
<i>Carried forward</i>		47,843 75	69,958 76

Appendix No. 6.—Continued.

Service.	\$ c.	\$ c.	\$ c.
<i>Brought forward</i>		47,843 95	69,958 76
<i>WOOD RANGING.—Continued.</i>			
Jeroux, A.		140 00	
Johnscr, C.		423 75	
Jones, W.		452 00	
Kernahan, G. A.		528 00	
King, Sam.		195 00	
Labree, Paul		502 50	
Laframbois, E.		236 00	
Lamon, Wm.		745 75	
Lapointe, Jas.		72 00	
Lee, J. B.		765 00	
Lepage, L.		623 25	
Leishman, E.		722 50	
Leroy, L. H.		519 50	
Lilevre, Joe		399 00	
Linklater, Geo.		1,209 50	
Little, T.		528 00	
Long, H. E.	480 00		
Disbursements	37 51		
		517 51	
Lowe, Wm.		252 00	
MacDonald, S. C. Disbursements		15 90	
Macdonnell, R. D.		680 00	
Mahoney, Thos.		82 50	
Manice, Wm.		1,177 50	
Margach, J. A.		810 00	
Margach, Wm. Disbursements		3,004 83	
Marr, H. S.	572 00		
Disbursements	2 30		
		574 30	
Maughan, Jos. Disbursements		30 70	
Menzies, Alex.	1,698 50		
Disbursements	139 02		
		1,837 52	
Mercier, Ed.		329 25	
Miller, J. A.		120 00	
Milway, J. H.		704 75	
Minty, A.		131 25	
Molyneaux, Geo.		650 00	
Moody, L.		850 00	
Mooney, L.	1,580 50		
Disbursements	248 18		
		1,828 68	
Moore, Joseph		36 00	
Moran, A.		1,430 00	
Morel, A.		452 50	
Morel, H.		704 00	
Murray, John		677 00	
Murray, Earl		48 75	
Murray, James		155 25	
Murray, Thos.		855 50	
Murray, Wm.		1,295 00	
McAulay, W. D.		665 00	
McCaw, J. G.	1,430 00		
Disbursements	8 55		
		1,438 55	
McCaw, J. E.		950 00	
McCuaig, J. A.		172 50	
McCuaig, R.		137 75	
McDonald, T.		800 00	
McDonald, J. D.		1,430 00	
McDonald, Hector Disbursements		15 00	
<i>Carried forward</i>		80,764 99	69,958 76

Appendix No. 6.—Continued.

Service.	\$	c.	\$	c.	\$	c.
<i>Brought forward</i>			80,764	99	69,958	76
<i>WOOD RANGING.—Continued.</i>						
McDougall, J. T. Disbursements			94	63		
McFarlane, J. A.			131	25		
McFarlane, A.			126	50		
McGillivray, D. D.			412	00		
McGregor, Wm.			4	00		
McGuire, P.			276	00		
McGuire, C.			525	00		
McIvor, J. A.			1,144	00		
McKee, Wm.			258	75		
McKendry, W. B.			750	00		
McLay, A.			240	00		
McLaughlin, John			343	50		
McLean, John	1,470	00				
Disbursements		147	05			
			1,617	05		
McManemun, C.			11	50		
McNabb, Alex.			885	00		
McPherson, J. S.			1,430	00		
Naponse, M.			292	50		
Nault, J.			504	00		
Nepham, D.			399	00		
Nelson, P.			214	50		
Niblet, James			1,250	00		
Nicoll, Geo.			7	50		
Nolan, H.			138	75		
Oliver, J. A. Disbursements			178	31		
Paulen, C.			140	00		
Peiton, F.			166	75		
Pigott, John			505	00		
Rae, A.			57	00		
Reid, John			900	00		
Ridley, R.			1,260	00		
Ritchie, John F.			820	00		
Ross, Sidney			1,242	75		
Ryan, James			488	00		
Shaw, Alfred			957	50		
Shaw, D.			544	00		
Sharp, James			675	00		
Shewfelt, Alfred			168	75		
Short, J.			560	00		
Simpson, Wm.			1,450	00		
Smith, Geo.			166	25		
Smith, J. D. C.			592	00		
Snyder, F.			435	75		
Spavin, John			765	00		
Spence, D.			1,578	50		
Spofford, Thos.			565	50		
Squires, J.			142	50		
Stein, P.	1,129	25				
Disbursements		35	37			
			1,164	62		
Stewart, D.	1,405	00				
Disbursements		40	35			
			1,445	35		
Stewart, T. F.			412	00		
Talouse, B.			3	00		
Thompson, W. B.			1,195	00		
Tichborne, H. C.			460	00		
Urquhart, A.			775	00		
Vanderberg, N.			829	00		
Vanslyke, J.			565	25		
<i>Carried forward</i>			113,008	20	69,958	76
3 L.M.						

Appendix No. 6.—Continued.

Service.	\$ c.	\$ c.	\$ c.
<i>Brought forward</i>		113,008 20	69,958 76
WOOD RANGING.— <i>Concluded.</i>			
Vincent, H. T.		1,030 00	
Washburn, J.		171 00	
Watts, Fred.		480 00	
Webster, W. A. Disbursements		71 25	
Whelan, P. J.		1,430 00	
Willan, Wm.		345 00	
Wilson, D.		840 00	
Wilson, C.		159 00	
Windle, James		471 50	
Wylie, B. M.		60 00	
Yeomans, James		1,276 50	
Young, J. J.		99 75	
Young, R. J.		710 00	120,152 20
FIRE RANGING.			
Abraham, Mike		57 50	
Abrey, Joseph		300 00	
Adair, R. A.		71 50	
Adams, Alex.		335 00	
Agnew, Wm.		270 00	
Alcock, F.		147 50	
Allen, R. A.		840 00	
Allen, Wm.		22 50	
Amelonap, J.		16 25	
American Tent and Awning Co. Supplies		220 35	
Anderson, M.		302 50	
Armstrong, B.		252 00	
Armstrong, W. H.		345 00	
Archambault, G.		374 00	
Ashby, L.		320 00	
Atkins, C.		350 00	
Atkinson, B.		312 50	
Bailey, H.		453 75	
Baonatos, M.		237 50	
Barrie, T.		376 75	
Barry, C.		305 00	
Bartlett, Geo. W. Disbursements		41 50	
Bartrand, I.		257 50	
Bates, R.		352 00	
Bayne, J. O.		387 50	
Beach, F. C.		217 50	
Beaudry, M.		317 50	
Beauvis, James		305 00	
Beauvis, P.		322 50	
Bedard, I.		347 50	
Bedford, H.		272 50	
Begley, Wm. P.	180 00		
Disbursements	20 57		
Behaniell, Geo.		200 57	
Belanger, B.		325 00	
Belcher, E. D.		20 00	
Bell, H.		330 00	
Bellefull, O.		156 75	
Belton, Wm. J.		365 00	
Benard, D.		347 50	
Benn, H. F.		471 00	
Berg, A.		345 00	
Bergeron, J.		205 00	
Berigan, S.		260 00	
		110 00	
<i>Carried forward</i>		11,846 42	190,110 96

Appendix No. 6.—Continued.

Service.	\$ c.	\$ c.	\$ c.
<i>Brought forward</i>		11,846 42	190,110.96
FIRE RANGING.—Continued.			
Berigan, D.		110 00	
Berlinquette, J.		346 50	
Bevan, T. W.		315 00	
Bezeau, U.		212 50	
Bird, John		345 00	
Bishop, F.		287 50	
Bisson, A.		290 00	
Blair, Geo.		25 00	
Blake, H.		338 25	
Blanchett, O.		112 50	
Blaski, F.		322 50	
Bliss, L. E.	1,974 28		
Disbursements	2,712 22		
		4,686 50	
Boivin, J.		317 50	
Boland, Wm.		330 00	
Boldt, A.		345 00	
Bolger, P. W.		285 00	
Bolsley, Frank		150 00	
Bonhome, L.		290 00	
Bookout, H. B.		320 00	
Boorze, A.		182 50	
Boorze, R.		182 50	
Booth, J. R.		49 50	
Bossie, R.		40 00	
Both, Alfred		352 50	
Both, Albert		377 50	
Bottrell, D.		315 00	
Boucher, C.		357 50	
Boucher, S.		225 50	
Boucher, J.		92 50	
Bouchard, E.		142 50	
Bouchard, A.		127 50	
Boudat, F.		152 50	
Bourbonnais, A.		285 00	
Bourdegnon, F.		57 75	
Bowers, Geo.		330 00	
Bowins, John		17 50	
Bowland, J. J.	860 00		
Disbursements	943 28		
		1,803 28	
Bowman, Theo.		280 00	
Bowles, J.		332 50	
Boyce, B.		327 25	
Boyd, John		347 50	
Boyd, J. F.		282 50	
Boys, John		290 00	
Bradley, W. E.		280 00	
Bradley, J.		324 50	
Branconnier, J.		120 00	
Brazzel, Robt.		230 00	
Breen, Geo.		322 50	
Brennan, Guy		190 00	
Brennan, G.		255 00	
Brennan, R. L.		357 50	
Bromley, E. H.		342 50	
Bromley, C.		231 00	
Brooks, W.		320 00	
Brown, John		307 50	
Brown, T. E.		337 50	
<i>Carried forward</i>		31,843 95	190,110.96

Appendix No. 6.—Continued.

Service.	\$ c.	\$ c.	\$ c.
<i>Brought forward</i>		31,843 95	190,110 96
<i>FIRE RANGING.—Continued.</i>			
Brown, Aug.		312 50	
Brown, Thos.		195 00	
Brown, Geo.		352 00	
Brown, H.		280 00	
Brownlee, J. J.		24 75	
Bruce, John		282 50	
Brum, A. W.	805 00		
Disbursements	165 15		
		970 15	
Buckingham, Geo.		343 25	
Bunting, H. T.		320 00	
Burgess, R.		235 00	
Burk, John		340 00	
Burk, T.		7 50	
Burkman, C.		382 50	
Burleigh, J.		305 00	
Burns, J.		295 25	
Burnes, Fred.		292 50	
Bruette, F.		97 50	
Byrne, H.		22 50	
Byrne, J.		245 00	
Byrnes, J.		257 50	
Cadere, H.		387 50	
Cahill, B.		327 50	
Calderwood, S.		115 00	
Caldwell, C.		277 50	
Cameron, N. A.		322 50	
Cameron, W. H.		302 50	
Cameron, Geo.		100 00	
Campbell, W. A.		462 00	
Campbell, R. A.		345 50	
Campbell, T. J.		345 00	
Campbell, A.		310 00	
Campbell, T. S.		176 00	
Campbell, D.		345 00	
Campbell, Wm.		572 00	
Campbell, Geo.		312 50	
Campbell, Ira		180 00	
Campbell, S.		127 50	
Campbell, Wesley		187 50	
Canore, Joseph		220 00	
Canton, C.		65 00	
Carmichael, T.		350 00	
Carnochan, Geo.		367 50	
Carrier, C.		165 00	
Carson, S.		122 50	
Case, Geo.		325 00	
Caslick, Wm.		217 50	
Caswell, G.		192 50	
Caswell, Ed.		382 50	
Caswell, R.		350 00	
Causley, N.		362 50	
Cellery, A.		82 50	
Chaffey, Wm.		360 00	
Chamberlain, H.		302 50	
Chapman, C. N.		300 00	
Charette, N.		237 50	
Charette, S.		307 50	
<i>Carried forward</i>		47,309 85	190,110 96

Appendix No. 6.—Continued.

Service.	\$ c.	\$ c.	\$ c.
<i>Brought forward</i>		47,309 85	190,110 96
<i>FIRE RANGING.—Continued.</i>			
Charron, J.		375 00	
Chase, J.		270 00	
Chenier, R.		142 50	
Chenier, G. T.		148 50	
Chief, T.		150 00	
Chief, J.		180 00	
Child, H.		245 00	
Christie, W. P. Disbursements ..		467 54	
Church, I.		5 00	
Clairmont, H.		367 50	
Clark, W. R.	405 00		
Disbursements	967 59		
		1,372 59	
Clark, H.		349 25	
Clery, J.		321 75	
Clegg, R.		315 00	
Cliff, W.		277 50	
Coady Bros. Equipment ..		500 00	
Cochrane, H. D.		347 50	
Coghlan, Thos.		387 50	
Coghlan, J. S.		325 00	
Coleman, E. J.		267 50	
Coleman, D.		147 50	
Commerand, Joe		290 00	
Connell, Wm.		451 00	
Conroy, Ed.		280 00	
Conway, R.		390 00	
Cook, E.		352 50	
Cook, Wm.		72 50	
Cooke, Wm.		210 00	
Cooper, Thos.		572 00	
Costello, H.		222 50	
Costello, H.		332 50	
Cotie, Fred		215 00	
Cottam, J. T.		275 00	
Cotte, H.		231 00	
Cottenham, W.		390 00	
Cox, Jos.		367 50	
Coyne, P.	765 00		
Disbursements	172 07		
		937 07	
Craig, John		327 50	
Cramorday, J.		16 25	
Crateau, C.		275 00	
Creswick, H. H.		320 00	
Critchley, P.	26 25		
Disbursements	5 00		
		31 25	
Crosbie, W. J.		312 50	
Cryderman, N.		56 00	
Culhane, John	392 50		
Disbursements	49 26		
		441 76	
Culhane, A.		282 50	
Culhane, D.		220 00	
Cullen, M. T.		510 50	
Cullen, W. F.		253 00	
Cullin, A. E.		265 00	
<i>Carried forward</i>		63,121 81	190,110 96

Appendix No. 6.—Continued.

Service.	\$ c.	\$ c.	\$ c.
<i>Brought forward</i>		63,121 81	190,110 96
<i>FIRE RANGING.—Continued.</i>			
Cunoy, R.		231 00	
Currie, F.		72 00	
Curtin, D.		347 50	
Curtis, John		357 50	
Dagg, A.		332 50	
Dagnis, E.		82 50	
Dambremont, F.		230 00	
Dane, Alfred		347 50	
Darby, Wm.		572 00	
Davidson, J.		99 00	
Davidson, John		332 50	
Davis, Thos.		302 50	
Dawe, Wm.	129 00		
Disbursements	21 60		
		150 60	
Dawkins, J. J.		377 50	
Dean, A.		317 50	
Dear, A.		67 50	
Dennie, M.		257 50	
Dennie, F. J.	905 00		
Disbursements	186 01		
		1,091 01	
Dennison, H.		387 50	
Derocher, S.		170 00	
Dischamp, F.		320 00	
Desjardine, F.		357 50	
Deslauriers, E.		255 00	
Dessermean, J.		195 00	
Dickson, R. N.		320 00	
Dimond, P.		100 00	
Dobie, Thos.		127 50	
Dodds, G.		325 00	
Dodds, W. H.		354 75	
Dodds, Thos.		357 50	
Donaldson, C.		347 50	
Donta, Jos.		347 50	
Douchime, S.		165 00	
Douchime, D.		162 50	
Douglas, J. R.		342 50	
Dourin, James		260 00	
Dowd, H. L.		346 50	
Dowdall, D.		112 50	
Doyle, James		342 50	
Dube, F.		305 00	
Dubois, A. L.		307 50	
Duke, D.		212 50	
Dulmage, J.		20 00	
Dunbar, James		322 50	
Dunn, J. O.		280 00	
Dupine, H.		397 50	
Dupuis, E.		357 50	
Duquette, H.		317 50	
Durnin, C.	160 00		
Disbursements	9 00		
		169 00	
Durocher, F.		90 00	
Durrell, John		165 00	
Durrell, D.		295 00	
<i>Carried forward</i>		77,625 17	190,110 96

Appendix No. 6.—Continued.

Service.	\$ c.	\$ c.	\$ c.
<i>Brought forward</i>		77,625 17	190,110 96
<i>FIRE RANGING.—Continued.</i>			
Durrell, L.		148 00	
Dusang, A.		556 50	
Duval, C. A. Disbursements		22 19	
Edwards, J. K.		305 00	
Elliott, W. J.		360 00	
Elliott, Jackson		327 50	
Elliott, Frank	612 00		
Disbursements	23 20		
		635 20	
Elliott, Wm.		302 50	
Elliott, C. H.		325 00	
Ellis, E. C.		337 50	
Ellsworth, C. B.		320 00	
Emes, H.		382 50	
Evans, W. J.	995 00		
Disbursements	1,525 65		
		2,520 65	
Fahey, R.		283 75	
Fairburn, N.		52 50	
Fairman, Wm.		14 00	
Favell, F.		65 00	
Favreau, Geo.		342 50	
Ferguson, T. H.	588 00		
Disbursements	3 32		
		591 32	
Ferguson, Frank		342 50	
Ferguson, A.		345 50	
Ferguson, J. R.		150 00	
Ferguson, Geo.		342 50	
Ferris, R.		88 00	
Fillion, D.		147 50	
Findlay, James		217 50	
Finlayson, H.		246 75	
Finlayson, N.		290 00	
Finlayson, J. H.		390 00	
Fisher, Geo.		765 00	
Fitzgerald, James		322 50	
Fitzpatrick, E.		157 50	
Flack, A.		319 00	
Flaherty, John		347 50	
Fletcher, N. B.	528 00		
Disbursements	41 35		
		569 35	
Flynn, J.		126 50	
Foard, F.		212 50	
Fontaine, M.		302 50	
Ford Motor Co. Trucks.		2,445 00	
Forman, A.		337 50	
Fortin, J. F.		242 50	
Foster, H.		213 50	
Foulie, W. J.		265 00	
Fox, J.		374 00	
Foy, Wm.		260 00	
Foy, E.		50 00	
Francois, J.		390 00	
Fraser, Ben		347 50	
Fraser, Peter		342 50	
Fraser, W. A.		367 50	
<i>Carried forward</i>		96,834 38	190,110 96

Appendix No. 6.—Continued.

Service.	\$ c.	\$ c.	\$ c.
<i>Brought forward</i>		96,834 38	190,110 96
<i>FIRE RANGING.—Continued.</i>			
Fraser, Gordon		342 50	
Frechett, Bap.		357 50	
Frenette, L.		87 50	
Fritchett, O.		277 50	
Furlong, J.		280 00	
Furlong, Wm.		382 50	
Gagne, F.	835 00		
Disbursements	555 73		
		1,390 73	
Gagnon, Paul		277 50	
Gagnon, Joe		198 00	
Gagnon, Alex.		340 00	
Gagnon, N.		387 50	
Gallow, J.		312 50	
Galvin, G.		302 50	
Gamble, J. M.		175 00	
Gamble, Wm. M.		317 50	
Gammond, Geo.		295 00	
Gardner, F.		257 50	
Garneaux, P.		45 00	
Garrow, J.		177 50	
Gartshore, M.		347 50	
Gauthier, E. P.		57 75	
Gault, J.		330 00	
Gault, R.		363 00	
Gauthier, P.		137 50	
Gauthier, Theo.		150 00	
Geddion, James		77 50	
Gemmill, John	805 00		
Disbursements	539 09		
		1,344 09	
Genereaux, S.		282 50	
Gervais, F. H.		335 00	
Gervais, Ferd.		335 00	
Gibbons, O.		349 25	
Gellanders, Geo.		160 00	
Gillon, Bert.		195 25	
Gillon, Roy		167 75	
Gilmour, T.		297 50	
Gleison, W.		150 00	
Glover, R.		145 00	
Godin, T. H.		120 00	
Godin, P.		130 00	
Godin, E.		320 00	
Godmanson, L.		310 00	
Gomme, P.		39 00	
Gongeon, A.		250 00	
Gordon, Alfred		357 50	
Gorman, D.		343 00	
Graham, J.		150 00	
Graham, James		354 75	
Grant, A.		180 00	
Grawberger, T. J.		322 50	
Grey, A. H.		305 00	
Grills, D.		264 00	
Groome, L.		357 50	
Groulx, Chas.		247 50	
Groulx, Joe		345 00	
<i>Carried forward</i>		112,658 45	190,110 96

Appendix No. 6.—Continued.

Service.	\$ c.	\$ c.	\$ c.
<i>Brought forward</i>		112,658 45	190,110 96
FIRE RANGING.—Continued.			
Groulx, A., Sr.		345 00	
Groulx, A., Jr.		360 00	
Gudgeon, J.		52 50	
Guilbault, A. T.		320 00	
Gunn, H.		260 00	
Gunter, R. H.		367 50	
Gunter, J.		342 50	
Guthrie, Wm.		315 00	
Gutoskie, A.		92 50	
Hackenbruck, M.		280 00	
Hagan, C.		367 50	
Hagarty, Jerry		397 50	
Haldane, F.		315 00	
Haley, Ed.		347 50	
Hall, G.		262 50	
Hall, F.		147 50	
Hall, J.		192 50	
Hall, Thos.		345 75	
Halley, L.		257 50	
Halliday, J.		305 00	
Hamilton, J. R.		345 00	
Hamilton, James		322 50	
Hamilton, F.	785 00		
Disbursements	823 04		
		1,608 04	
Hamon, F.		342 50	
Hand, T.	880 00		
Disbursements	740 15		
		1,620 15	
Hanmer, J.		240 00	
Hannan, J. W.		105 00	
Hanrahan, D.	665 00		
Disbursements	905 70		
		1,570 70	
Hanson, L.		105 00	
Harney, S.		316 25	
Harris, C.		184 25	
Harrison, G.		285 00	
Harrison, W.		350 00	
Harrison, D.		317 50	
Harvie, A.		305 00	
Haskins, Wm.		312 50	
Haskins, J.		137 50	
Hass, G.		262 50	
Hass, G. J.		347 50	
Hastings, John		385 00	
Hatch, A. L.		105 00	
Hawkins, G. M.		55 00	
Hawley, P.		165 00	
Hayes, C.		257 50	
Hayes, S.		290 00	
Hazard, Geo.		120 00	
Hebert, J.		180 00	
Heggart, Chas.		345 00	
Henderson, J.		362 00	
Hennessey, B. E.		170 50	
Hennessey, M. J.		257 50	
Henson, W.		235 00	
<i>Carried forward</i>		130,336 09	190,110 96
4 L.M.			

Appendix No. 6.—Continued.

Service.	\$ c.	\$ c.	\$ c.
<i>Brought forward</i>		130,336 09	190,110 96
FIRE RANGING.—Continued.			
Herbert, J.		280 00	
Herron, A.		170 00	
Heslip, C.		375 00	
Hey, Ben		815 00	
Hickley, J. L.	493 00		
Disbursements	257 85		
		750 85	
Higgins, J. R.		245 00	
Hill, Chas.		57 50	
Hogan, J.		330 00	
Hogan, P.		335 00	
Holmes, G.		435 00	
Hooper, F. T.		127 50	
Hooper, W. A.		332 50	
Hopkins, R. D.		195 00	
Horne, J. M.		343 75	
Horner, Ed.		220 00	
Hornick, Geo.		352 50	
Huckson, A. H. Disbursements		99 76	
Hugham, J. M.		42 50	
Hume, O. B.		342 50	
Hunn, W.		357 50	
Hunter, Wm.		290 00	
Hunter, L.		262 50	
Hurdman, W. H.	705 00		
Disbursements	95 65		
		800 65	
Irwin, Thos.		317 50	
Isbister, J. A.		349 25	
Jackman, H.		27 00	
Jackson, J. E.		50 00	
Jacob, M.		72 50	
Jarvis, J.		324 50	
Jenkin, S.	718 50		
Disbursements	504 50		
		1,223 00	
Jenson, A.		80 00	
Jerrett, E. L.		337 50	
Jewell, James		272 50	
Jewell, F.		330 00	
Jewell, F.		335 00	
Jocko, P.		331 25	
Johnson, Wm.		451 00	
Johnson, A.		203 50	
Johnson, F.	320 00		
Disbursements	160 00		
		480 00	
Johnson, R.		3 50	
Johnson, G. S.		335 00	
Johnson, David		19 25	
Johnson, W.		142 50	
Johnston, John		367 50	
Johnston, T. J.		374 00	
Jolicoure, P.		214 50	
Jonas, A.		125 00	
Jones, C. E.		312 50	
Keeler, G. H.		285 00	
Keeley, C. A.		350 00	
<i>Carried forward</i>		145,609 35	190,110 96

Appendix No. 6.—Continued.

Service.	\$ c.	\$ c.	\$ c.
<i>Brought forward</i>		145,609 35	190,110 96
<i>FIRE RANGING.—Continued.</i>			
Keller, D. F.		255 75	
Kelley, Robt.		366 50	
Kelly, T.		345 00	
Kelly, Geo.		315 00	
Kemp, Wm.		312 50	
Keenahan, M.		342 50	
Kennedy, Robt.		347 50	
Kennedy Hardware Co. Supplies.		73 44	
Kenrvorst, W. H.		47 50	
Keon, M.		198 00	
Keon, T.		17 50	
Kerr, Robt.		488 00	
Kewais, Wm.		302 50	
Kewais, Jacob		317 50	
Kiley, M.		280 00	
King, A.		145 75	
King, Robert		382 50	
King's Printer Supplies.		2,131 78	
Kingston, T. H.		382 50	
Kingston, T. J.		382 50	
Kipling, G.		242 00	
Kirby, John, Sr.		305 00	
Kirby, John, Jr.		347 50	
Kirkhane, Lawrence		162 50	
Kirton, Wm.		362 50	
Kistabish, Frank		280 00	
Kitchen, James		377 50	
Kitchen, J.		257 50	
Kowalski, Chas.		242 50	
Krock, L. A.		207 50	
Kunkel, Frank		258 00	
Labine, Emile		220 00	
Labine, John		332 50	
LaBrash, J.		272 50	
LaBrash, James		280 00	
Lachance, M.		142 50	
Lacclair, W.		162 50	
Laffin, Bert		78 00	
Lofquest, M.		345 00	
Lagrow, G. W.		337 50	
Laidlaw, H.		357 50	
Laird, L. A.		50 00	
Laird, Peter		347 50	
Lalonde, Fred.		330 25	
Lamb, Joe		77 50	
Lamieux, N.		87 50	
Lamoureux, A.		295 00	
Lance, F.		332 50	
Landry, Amer.		87 50	
Landry, John		322 50	
Langford, Thos.		342 50	
Langtree, John		345 00	
Langevain, Wm.		122 50	
Laplante, B.		50 00	
LaRose, Louis		257 50	
Laroux, J.		242 50	
<i>Carried forward</i>		161,904 32	190,110 96

Appendix No. 6.—Continued.

Service.	\$	c.	\$	c.	\$	c.
<i>Brought forward</i>			161,904	32		190,110 96
<i>FIRE RANGING.—Continued.</i>						
Larwell, O.			382	50		
Laundry, Peter			260	00		
Lavigne, A.			117	50		
Lavoie, X.			347	50		
Lawrence, S.			350	00		
Leblanc, O.	556	00				
Disbursements	52	40				
LeBlanc, J.			608	40		
LeClaire, H.			325	00		
Lee, E. J.			280	00		
Lee, J. C.	601	00	347	50		
Disbursements	137	63				
Lee, J. B.	800	00	738	63		
Disbursements	198	87				
Lefebure, J.			998	87		
Lefrany, D.			357	50		
Legg, S.			3	75		
Legris, Thos.			57	50		
Legris, J.			347	50		
Legris, H. M.			6,365	14		
Lemieux, F.			345	00		
Leonard, T.			87	50		
Leroy, L.	860	00	347	50		
Disbursements	1,174	00				
Lerwill, R.			2,034	00		
Leslie, E.			307	50		
Leudolph, B. H.	150	00	18	00		
Disbursements	10	69				
Liddicotte, Thos. L.			160	69		
Lileore, J.			450	50		
Lilley, D.			132	50		
Lillico, A. L.			50	00		
Linch, M.			317	50		
Livingston, John			123	75		
Logambre, P.			353	00		
Looney, John			220	00		
Lortie, E.			357	50		
Lothian, D. R.			24	75		
Love, F.			139	00		
Lovering, J. E.			272	50		
Lonwes, R. G.			317	50		
Ludford, F.			310	00		
Ludgate, John			252	00		
Luke, A.			129	25		
Lumb, John			73	90		
Lumb, J. C.			370	00		
Lundy, M. F.			272	50		
Lupeen, J.			342	50		
Lyle, J.			59	50		
Lynch, John			125	00		
MacDonald, C.			183	00		
MacDonell, L. P.			77	50		
Macdonell, R. D.			350	00		
			765	00		
<i>Carried forward</i>			183,160	45		190,110 96

Appendix No. 6.—Continued.

Service.	\$ c.	\$ c.	\$ c.
<i>Brought forward</i>		183,160 45	190,110 96
<i>FIRE RANGING.—Continued.</i>			
MacGregor, W. H.	890 00		
Disbursements	632 76		
		1,522 76	
Mackie, H.		283 25	
MacNeil, J. A.		342 50	
MacPhee, A. L.		110 00	
Martin, W.		60 75	
Magher, Geo.		302 50	
Mallon, J.		140 00	
Maloney, J.		182 50	
Marcourt, P.		255 00	
Margach, Wm.	Disbursements.	59 36	
Margach, J. A.		552 00	
Marsh, Ed.		340 00	
Martin, Ed.		357 50	
Martin, T.		302 50	
Martin, T.		357 50	
Martin, A. L.		340 00	
Mason, Geo.		382 50	
Mason, G.		202 50	
Matheson, R.		167 75	
Mattice, J. H.		270 00	
Mawhinney, G. S.		307 50	
May, H.	730 00		
Disbursements	40 25		
		770 25	
Merchant, John		357 50	
Merkley, J. C.		240 00	
Messervier, T.		255 00	
Mickelson, John		307 50	
Middlebrook, J. N.		302 50	
Millar, R.		320 00	
Millichamp, T.		177 50	
Mills, W. E.		345 00	
Milway, J. H.	830 00		
Disbursements	1,002 39		
		1,832 39	
Minker, T.		220 00	
Minnawasin, P.		250 25	
Mitchell, P.		370 00	
Mitter, M.		162 50	
Moffatt, J.		382 50	
Molyneaux, Geo.	805 00		
Disbursements	1,130 12		
		1,935 12	
Mongrain, C.		96 00	
Montgomery, R.		231 50	
Montgomery, W. R.		307 50	
Montreiul, E.		245 00	
Montreiul, L.		382 50	
Montreiul, J. J.		317 50	
Moir, A.		322 50	
Moody, H. C.		317 50	
Moore, R.		272 50	
Moore, S.		127 50	
Moore, A. S.		357 50	
Moore, J. V.		345 00	
Moore, P.		220 00	
<i>Carried forward</i>		201,769 33	190,110 96

Appendix No. 6.—Continued.

Service.	\$ c.	\$ c.	\$ c.
<i>Brought forward</i>		201,769 33	190,110 96
<i>FIRE RANGING.—Continued.</i>			
Moorhead, R.		280 00	
Morel, H.		315 00	
Morgan, Geo.	584 00		
Disbursements	41 80		
		625 80	
Morgan, F.		315 00	
Morgan, C.		52 25	
Moriarty, M.		345 00	
Moriarty, E.		107 50	
Morin, J.		330 00	
Morin, J.		357 50	
Morin, J.		327 25	
Morin, J.		280 00	
Morriseau, F.		198 00	
Morrison, J.		69 00	
Morrison, J.		180 00	
Morrison, J.		312 50	
Morton, Geo.		322 50	
Mosse, H.		172 50	
Moxam, V. R.		60 00	
Mucklinberry, T.		380 00	
Mullin, W. R.		365 75	
Murphy, J.		345 00	
Murrach, P.		77 50	
Musquatish, H.		322 50	
McAdam, J.		390 00	
McArthur, Wm.		312 50	
McAulay, W. D.	855 00		
Disbursements	775 42		
		1,630 42	
McBain, R.		312 50	
McCann, L.		322 50	
McCaw, Wesley		347 50	
McCaskill, S.		299 25	
McClelland, D. W.		280 00	
McColl, H.		347 50	
McCool, J.		42 50	
McCormick, P.		335 50	
McCormick, T.		377 50	
McCoy, C. L.		267 50	
McCreight, A.		357 50	
McCrindle, I.		257 69	
McCullough, D. J.		230 00	
McCulloch, T.		235 00	
MCurrach, Jas.		305 00	
McDermid, A.		267 50	
McDermott, W. H.		77 50	
McDonald, H.	Disbursements	1,281 47	
McDonald, Archie		52 50	
McDonald, Alex.		294 25	
McDonald, F.		305 00	
McDonald, F.		317 50	
McDonald, J.		308 00	
McDonald, T.		580 00	
McDonald, J. R.		279 50	
McDonald, D. R.		310 00	
McDonald, G.		99 00	
<i>Carried forward</i>		218,732 46	190,110 96

Appendix No. 6.—Continued.

Service.	\$ c.	\$ c.	\$ c.
<i>Brought forward</i>		218,732 46	190,110 96
<i>FIRE RANGING.—Continued.</i>			
McDonald, J.		282 50	
McDonald, J.		235 00	
McDonald, Wm.		302 50	
McDonald, B.		142 50	
McDonald, J.		315 00	
McDonald, Allan	155 00		
Disbursements	1,584 38		
		1,739 38	
McDonald, A. J.	1,350 00		
Disbursements	3,806 16		
		5,156 16	
McDonnell, John		17 50	
McDougall, J. T. Disbursements		427 76	
McDougall, C.		354 75	
McFarland, J.		312 50	
McFarlane, J. A.		327 50	
McFarlane, W.		332 50	
McGauley, R.		202 50	
McGaw, Capt.		260 00	
McGee, H.		287 50	
McGee, John		255 00	
McGhie, Chas.		265 00	
McGraw, L.		71 50	
McGregor, J. A.		347 50	
McGowan, T.	795 00		
Disbursements	1,934 07		
		2,729 07	
McHughen, John		305 00	
McInnes, C.		389 75	
McIntosh, P.		5 00	
McIvor, A.		255 00	
McKechnie, J. A. Disbursements		165 18	
McKee, Ed.		122 50	
McKee, Thos.		382 50	
McKendry, W. B.		390 00	
McKenna, T.		280 00	
McKenna, P.		240 00	
McKenzie, Alex.		342 50	
McKenzie, J.		357 50	
McKinnon, T.		10 00	
McKinnon, H.		330 00	
McLaren, J.		382 50	
McLean, D.		330 00	
McLeod, E. H. Disbursements		55 27	
McLeod, B.		71 50	
McLeod, P.		71 50	
McLeod, J. A.		360 25	
McLeod, J.		63 25	
McMahon, A.		322 50	
McNally, B.		339 50	
McNee, G.		327 25	
McNee, E. D.		178 75	
McPhail, H.		320 00	
McRae, Alex.		227 50	
McQuestion, V.		312 50	
Narvanen, K.		5 00	
Nault, James	636 00		
Disbursements	3 20		
		639 20	
Naumann, E.		202 50	
Neaveau, James		267 50	
<i>Carried forward</i>		241,147 48	190,110 96

Appendix No. 6.—Continued.

Service.	\$ c.	\$ c.	\$ c.
<i>Brought forward</i>		241,147 48	190,110 96
<i>FIRE RANGING.—Continued.</i>			
Neaveau, S.		160 00	
Nelson, N.		214 50	
Neep, Percy		280 00	
Neill, J.		345 00	
Netmegesic, M.		180 00	
Nevish, J.		57 50	
Nevison, W. H.		580 00	
Newman, P.		294 25	
Nicholes, Wm.		280 00	
Nichols Company, J. L.	Supplies.	194 62	
Nedderly, R.		322 50	
Noel, J.		275 00	
Nolan, C.		127 50	
Norman, F.		292 50	
Norris, R. E.		42 50	
Norton, W. A.		330 00	
Nutterville, Wm.		17 50	
O'Brien, D.		290 00	
O'Brien, P.		305 00	
O'Brien, T.		46 75	
O'Bryan, A. E.		315 00	
O'Connor, Wm.		280 00	
O'Connor, Wm.		215 00	
O'Connor, J.		240 00	
O'Connell, J. F.		342 50	
Oggelstein, R.		393 25	
O'Grady, M.		357 50	
Oliver, J. A.	Disbursements.	120 00	
O'Neil, T.		347 50	
O'Neil, T.		357 50	
O'Neil, Fred.		145 75	
Orbick, O.		97 50	
Ore, A.		349 25	
Ormerod, H. G.		342 50	
Osborne, A.		317 50	
Oskaboose, S.		315 00	
Oskaboose, F.		315 00	
Ouillette, A.		302 50	
Ovenstone, J.		308 50	
Page, Fred.		357 50	
Palmer, Wm.		315 00	
Panasvich, E.		16 40	
Paquette, John		392 50	
Paradis, D.		60 00	
Parkhouse, H.		192 50	
Parkhurst, J.		347 50	
Passmore, T.		232 50	
Patrie, A.		92 50	
Patterson, Neal		316 25	
Paul, E.		198 00	
Paulter, C.		166 00	
Payette, F.		240 00	
Peacock, Wm.		125 00	
Pearce, Thos.		357 50	
Pearson, A.		117 50	
Pecott, J.		307 50	
Pellerin, E.		228 25	
Pelletier, C.		285 00	
Pelletier, E.		305 00	
Pellot, J. B.		305 00	
Pellow, H.		12 50	
Penard, R.		155 00	
<i>Carried forward</i>		256,369 25	190,110 96

Appendix No. 6.—Continued.

Service.	\$ c.	\$ c.	\$ c.
<i>Brought forward</i>		256,369 25	190,110 96
<i>FIRE RANGING.—Continued.</i>			
Perrault, Fred.		50 00	
Perron, T.		277 50	
Perron, C.		190 00	
Perron, D.		184 25	
Peters, G. E.	735 00		
Disbursements	57 13		
		792 13	
Pettipher, C. R.		335 50	
Phelan, R.		50 00	
Picard, F.		313 50	
Picard, F.		313 50	
Pierie, Thos.		262 50	
Pigeon, C.		257 50	
Piggott, W. D.		382 50	
Piggott, J. A.		280 00	
Pingle, A.		330 00	
Pinnette, J.		324 50	
Poirier, E.		295 00	
Pollock, R.		285 00	
Poole, E. G.	1,125 00		
Disbursements	9,412 52		
		10,537 52	
Porteous, Wm.		370 00	
Pouquette, D.		6 75	
Pourpore, J.		187 00	
Powell, J.		317 50	
Powell, M.		317 50	
Premmo, P.		25 00	
Pritchard, F.		636 00	
Quackenbush, P.		360 00	
Quackenbush, C.		77 50	
Quail, Wm.		325 00	
Quartz, F. A.	196 00		
Disbursements	19 35		
		215 35	
Quinn, J. J.		345 00	
Rabbitts, Max	805 00		
Disbursements	9 70		
		814 70	
Ramsay, P.		322 50	
Raymond, A.		127 50	
Read, C.		481 00	
Regan, John		390 00	
Remilliard, S.		307 50	
Restoule, F.		297 50	
Revell, L. O.	915 00		
Disbursements	729 63		
		1,644 63	
Reynolds, J.		612 00	
Richardson, C.		207 50	
Richardson, S. G.		765 00	
Richardson, W. F.		35 00	
Richardson, R.		137 50	
Richardson, W. D.		310 00	
Richards, H.		255 00	
Ritcheson, W.		122 50	
Roach, Ed.		295 00	
Robertson, J.		387 50	
<i>Carried forward</i>		282,525 08	190,110 96

Appendix No. 6.—Continued.

Service.	\$ c.	\$ c.	\$ c.
<i>Brought forward</i>		282,525 08	190,110 96
FIRE RANGING.—Continued.			
Robertson, W.		302 50	
Robinson, J. B.		370 50	
Rochford, A.		342 50	
Rockall, F. W.		260 00	
Ross, A.		350 00	
Rossboro, F.		231 00	
Rourke, E. O.		167 50	
Rowe, J.		367 50	
Roy, Alex.		325 00	
Roy, T.		375 50	
Ruddy, E. L., Co., Ltd. Supplies		1,067 60	
Ruddy, T.		390 00	
Rutherford, M.		190 00	
Rusnell, W. T.		87 50	
Russell, A.		3 50	
Ryan, W. H.		385 00	
Ryan, Wm.		325 00	
Sackrider, A.		2 50	
Sample, F.		167 50	
Savard, A.		137 50	
Sawyer, N.		347 50	
Sawyer, R.		347 50	
Scarlett, E.		242 50	
Scott, Robt.	835 00		
Disbursements	894 27		
		1,729 27	
Scott, Thos.		260 00	
Scott, T. E.		317 50	
Scott, D. S.		80 00	
Sculley, M.		147 50	
Searle, W.		25 00	
Seeley, P. P.		72 50	
Sharpe, J.		440 00	
Sheehan, D.		232 50	
Shields, H.		382 25	
Shea, J. O.		260 00	
Sherman, W.		5 50	
Sherwood, H. D.		147 50	
Short, J.		90 00	
Simmers, W. J.		287 50	
Simmons, J.		305 00	
Simpson, E.		338 25	
Simpson, A.		338 25	
Simpson, M.		322 50	
Sinclair, D.		340 00	
Sing, W. H.		139 00	
Singer, P.		25 00	
Singer, Wm.		77 50	
Skidmore, G. H.		67 50	
Slee, B.		21 00	
Small, M. A.		327 50	
Smellie, J.		302 50	
Smith, John		367 50	
Smith, J.		345 00	
Smith, G. B.		302 50	
Smith, T. D.		345 00	
Smith, G. D.		63 25	
Smith, S.		18 20	
Smith, G.		312 50	
<i>Carried forward</i>		298,145 65	190,110 96

Appendix No. 6.—Continued.

Service.	\$ c.	\$ c.	\$ c.
<i>Brought forward</i>		298,145 65	190,110 96
<i>FIRE RANGING.—Continued.</i>			
Smith, D.		305 25	
Smith, David		230 00	
Smith, D.		302 50	
Smith, Dan		7 50	
Smith, H.		180 00	
Smith, V.		620 50	
Smith, C. C.		102 50	
Smyth, John		310 00	
Sodman, R.		77 50	
Souliere, W.		277 50	
Soway, J.		32 50	
Spaniel, P.		142 50	
Spears, Wm.		81 00	
Spencer, F.		92 50	
Spillett, A. F.		340 00	
Spillett, J. J.		340 00	
Spillett, P. L.		335 00	
Spooner, J. B.		190 00	
Spoon, P.		22 50	
Spreadborough, N.		367 50	
Stadelberean, B.		2 50	
Staniforth, A.		335 00	
Stata, S.		325 00	
Steep, Geo.		310 00	
Stevens, H.		235 00	
Stewart, D. J.		347 50	
Stewart, T.		127 50	
Stewart, A.		305 00	
Stewart, D.		9 90	
Stewart, J. A. Disbursements		130 65	
Stitt, J. H.		277 50	
Stover, R. T.		300 00	
Strange, B.		382 50	
Stratton, R.		380 00	
Stringer, K.		295 00	
St. Dennis, Chas.		275 00	
St. Dennis, A.		190 00	
St. Jane, J.		270 00	
Sudds, D.		346 50	
Sullivan, P.		313 50	
Sullivan, N.		295 00	
Sutherland, J. W.		342 50	
Swanson, G.		346 50	
Sweeney, L.		85 00	
Tabbert, H.		287 50	
Tackney, Thos.	865 00		
Disbursements	678 63		
Tait, J.		1,543 63	
Tait, A.		390 00	
Tallon, M.		390 00	
Tang, J.		330 00	
Taylor, C.		335 00	
Thibb, E.		215 00	
Thomas, H.		295 00	
Thompson, J. W.		343 00	
Thomson, W. C.		325 00	
Thomson, J. L.		296 00	
		387 50	
<i>Carried forward</i>		313,867 08	190,110 96

Appendix No. 6.—Continued.

Service.	\$ c.	\$ c.	\$ c.
<i>Brought forward</i>		313,867 08	190,110 96
<i>FIRE RANGING.—Continued.</i>			
Thompson, F.		305 00	
Tichborne, A.		556 00	
Tomlinson, C.		315 00	
Toohy, C.		112 50	
Toomer, S.		285 00	
Torrance, J. A.		320 00	
Tousseant, D.		192 50	
Tower, O.		345 00	
Tremblay, E.		207 50	
Tremblay, J.		197 50	
Tripp, E. C.		350 00	
Tryon, W.		152 50	
Turcotte, J.		245 00	
Turennie, O.		50 00	
Turpin, G. O.		198 00	
Tyson, John		320 00	
Urquhart, A.	840 00		
Disbursements	1,207 70		
		2,047 70	
Vanluven, M.		120 00	
Veley, Wm.		285 00	
Vincent, Thos.		282 50	
Vincent, H. T.		480 00	
Viseau, G.		3 75	
Viseau, L.		3 75	
Volker, P.		100 00	
Walker, G. W.		340 00	
Walker, E.		192 50	
Walsh, J.		206 25	
Wanamaker, W.		357 50	
Wanamaker, O.		542 00	
Ward, J.		368 00	
Ward, D.		402 50	
Warren, A.		275 00	
Watters, A. M.		357 50	
Watts, Geo.	Disbursements.	65 00	
Weller, C.		305 00	
Weinholdt, C.		350 00	
Weir, Geo.		320 00	
Welch, J.		325 00	
Wesley, W. C.		162 50	
West, Wm.		342 50	
West, Walter		295 00	
West, H.		342 50	
West, G.		165 00	
Whitmore, D.		347 50	
Wickens, H.		374 00	
Wiggins, J. R.		75 00	
Wildman, A. R.		87 50	
Wilkes, L.		30 25	
Williams, S.		343 75	
Willis, E.		316 25	
Wilson, John		101 75	
Wilson, J.		382 50	
Wilson, J. G.		253 00	
Wilson, J. H.		320 00	
Wilson, B.		230 00	
Wilson, W. J.		302 50	
Wilson, A. B.		282 50	
<i>Carried forward</i>		330,501 53	190,110 96

Appendix No. 6.—Continued.

Service.	\$ c.	\$ c.
<i>Brought forward</i>		330,501 53
<i>FIRE RANGING.—Concluded.</i>		190,110 96
Wilson, F.		6 25
Wilson, D.	700 00	
Disbursements	1,285 83	
		1,985 83
Wilson, J. B.		50 00
Winters, O.		97 50
Woodcock, Geo.	441 75	
Disbursements	18 10	
		459 85
Woodcock, G.		313 50
Woods, T. J.	800 00	
Disbursements	1,128 54	
		1,928 54
Woods, Geo.		342 50
Woods, Wm.		297 50
Wright, H. H.		272 50
Wright, E.		345 00
Wright, C.		207 50
Wright, J. S.		332 50
Youmans, A.		379 50
Young, Jesse		66 00
Young, Wm.		347 50
		337,933 50
<i>FOREST RESERVES.</i>		
<i>Temagami Reserve, \$39,694.04.</i>		
Armstrong, H.		337 50
Aubee, Theo.		385 00
Aubin, N.		357 50
Aymes, A. J.		275 00
Barrett, T.		512 00
Bechamp, Wm.		307 50
Benard, B.		97 50
Berlinquette, E.		310 00
Black, Geo.		322 50
Brownlee, F. C.		337 50
Brosseau, Wm.		357 50
Burnes, J. L.		267 50
Campbell, A.		322 50
Carleton, Geo.		317 50
Clarke, Wm. G.		302 50
Coghill, J. M.	448 00	
Disbursements	10 10	
		458 10
Corbeil, Jos.		315 00
Cunning, J. E.		95 00
Denne, D.		250 00
Descateaux, J.		315 00
Desroisiers, J.		310 00
Desroisiers, E.		330 00
Didier, H.	805 00	
Disbursements	694 28	
		1,499 28
Downey, F.		245 00
Evaline, W.		372 00
Faeris, R.		452 50
Faulkner, D.		227 50
Fillion, G.		227 50
<i>Carried forward</i>		9,906 38
		528,044 46

Appendix No. 6.—Continued.

Service.	\$ c.	\$ c.	\$ c.
<i>Brought forward</i>		9,906 38	528,044 46
FOREST RESERVES.—Continued.			
<i>Temagami Reserve.—Continued.</i>			
Flanigan, W. G.		317 50	
Forbes, C.		252 50	
Francoeur, D.		307 50	
Fraser, J.		267 50	
Gale, W. J.		310 00	
Gauthier, O.		250 00	
Greenrod, S.		317 50	
Grenier, J.		322 50	
Griffith, R. K.		187 50	
Hartley, M.		365 00	
Hartt, I. B.		580 00	
Hartt, J. C.		77 50	
Harrison, J. W.		912 50	
Henry, R.		240 00	
Hindson, C. E.	1,208 00		
Disbursements	1,771 60		
		2,979 60	
Hoadley, John		305 00	
Jacob, S.		322 50	
Jenkins, W.		182 50	
Jennings, J. E.		92 50	
Johnston, W.		335 00	
Johnston, A. S.		337 50	
Jolicouer, E.		357 00	
Kennedy, Wm.		50 00	
Kennedy, J.		252 50	
Kilby, T.		265 00	
King, C. S.		155 03	
Laferier, L.		280 00	
Lamarche, A.		912 50	
Lamarche, R.		230 00	
Laporte, F.		297 50	
Laporte, M.		297 50	
Lavigne, P.		357 50	
Layman, F.		337 50	
Little, Roy		185 00	
Marion, C.		357 50	
Mathews, F. W.		335 00	
Miller, J. R.		292 50	
Millichamp, Thos.		107 50	
Morel, A.	546 00		
Disbursements	14 23		
		560 23	
Morin, John		327 50	
Morphy, C.		237 50	
Morris, D. R.		262 50	
Murdell, J.		87 50	
Murphy, Jas.		292 50	
McCart, J.		132 50	
McDonald, A.		167 50	
McGarvey, P.		335 00	
McIntyre, J. E.		322 50	
McKay, W.		10 00	
McKechnie, A.		320 00	
McKenzie, T.		322 50	
McKissock, B.		167 50	
McMullin, W.		322 50	
<i>Carried forward</i>		28,105 71	528,044 46

Appendix No. 6.—Continued.

Service.	\$ c.	\$ c.	\$ c.
<i>Brought forward</i>		28,105 71	528,044 46
<i>FOREST RESERVES.—Continued.</i>			
<i>Metagami Reserve.—Concluded.</i>			
McNabb, Wm.		275 00	
Nadon, P.		320 00	
Neil, H. J.		320 00	
Nolan, C. J.		320 00	
Normand, L.		371 00	
Ogden, F. H.		337 50	
Olson, Thos.		210 00	
Papineau, J.		62 50	
Petrant, Wm.		322 50	
Pirie, J. B.		322 50	
Powell, John		320 00	
Reesor, G. O.		365 00	
Reilly, J.		302 50	
Richardson, R.		302 50	
Rogers, J.		167 50	
Saunders, W. J.		322 50	
Sharpe, F. W.		320 00	
Simpson, T.		325 00	
Smith, T. M.		337 50	
Stevens, V.		122 50	
Sutherland, E.		225 00	
Taylor, F.		230 00	
Thorley, C. W.		312 50	
Thorpe, T.		372 50	
Tremblay, L.		285 00	
Tremblay, J.		285 00	
Trothier, J.		337 50	
Viverais, D.		830 00	
Viverais, M.		342 50	
White, J.		315 00	
Williams, H. B.		22 50	
Williams, A. E.		260 00	
Wilson, B.		47 50	
Wilson, Alex.		322 50	
Winder, A.		152 50	
Young, R. J.	860 00		
Disbursements	642 33		
		1,502 33	
<i>Metagami Reserve, \$8,252.02.</i>			
Bach, E. L.		340 00	
Baker, Wm.		357 50	
Blackwell, J. J.		350 00	
Briggs, A. V.		352 50	
Bruiette, F.		90 00	
Burden, John	885 00		
Disbursements	506 02		
		1,391 02	
Cadautte, Alex.		265 00	
Cameron, W. J.		357 50	
Cayen, J. B.		357 50	
Charette, N.		55 00	
Chatson, F. C.		380 00	
Chubb, Geo. W.		340 00	
Jack, J.		70 00	
Luke, Jas.		232 50	
Martin, Jas.		267 50	
<i>Carried forward</i>		44,900 06	528,044 46

Appendix No. 6.—Continued.

Service.	\$ c.	\$ c.	\$ c.
<i>Brought forward</i>		44,900 06	528,044 46
<i>FOREST RESERVES.—Continued.</i>			
<i>Metagamí Reserve.—Concluded.</i>			
Moffitt, A. E.		355 00	
McFayden, Jas.		556 00	
McFarline, D.		70 00	
Naview, R.		147 50	
Naview, J.		272 50	
Parkinson, R. K.		267 50	
Sauver, Fred.		190 00	
Sears, L.		265 00	
Stoddart, W. H.		210 00	
Thomas, O.		190 00	
Tuer, Wm.		235 00	
White, J. H.		287 50	
<i>Mississaga Reserve, \$26,854.08.</i>			
Acheson, L.		644 00	
Acheson, P. T.		160 00	
Beal, Chas. R.		192 50	
Beaudin, S.		357 50	
Beckett, A. G.		205 00	
Belanger, T.		380 00	
Bergeron, J.		55 00	
Best, H.		360 00	
Buisson, Wm.		372 50	
Bulmer, Andy		357 50	
Carnfelt, D.		385 00	
Carpenter, R. J.		592 00	
Causley, P.		367 50	
Chappish, J.		343 75	
Clute, Geo.		530 00	
Cochrane, J. E.		260 00	
Cornett, W. G.		330 00	
Cousineau, Max		330 00	
Couverette, John		340 00	
Daw, Chas. E.		350 00	
Deschamp, B.		357 50	
Draper, Wm.		50 00	
Duck, W. S.		372 50	
Duval, C. A.	935 00		
Disbursements	2,708 08		
		3,643 08	
Ecker, C. M.		352 50	
Eveline, S.		340 00	
Fecto, Geo.		443 50	
Ferguson, E. A.		332 50	
Findlay, J.		401 50	
Fitzgerald, R.		32 50	
Godson, H.		395 00	
Heenan, P.		387 50	
Hillman, J.		395 00	
Hinder, P. G.		340 00	
Hobson, B.		345 00	
Jean, A.		652 00	
Kade, J. A.		206 25	
Lavender, P.		342 50	
Leblanc, Lorne		375 00	
Legace, F.		110 00	
<i>Carried forward</i>		64,532 14	528,044 46

Appendix No. 6.—Continued.

Service.	\$ c.	\$ c.	\$ c.
<i>Brought forward</i>		64,532 14	528,044 46
<i>FOREST RESERVES.—Continued.</i>			
<i>Mississaga Reserve.—Concluded.</i>			
Lewis, S.		342 00	
Luke, S.		242 00	
Marcoux, E.		337 50	
Martin, H.		286 00	
Massey, J.		50 00	
Miller, W. J.		468 00	
Mitchell, John		242 50	
Morrison, Andrew		345 00	
Mulvaney, C.		302 50	
Murray, John		372 50	
McGrath, B.		340 00	
McKay, Alex.		202 50	
McLaughlin, J.		392 50	
McLean, C.		302 50	
McWatch, P.		330 00	
McWatch, S.		330 00	
Nichols, H.		612 00	
Nightingale, G. E.		280 00	
O'Connell, C.		275 00	
Orange, Wm.		365 00	
Paquette, O.		337 50	
Piper, Geo. E.		189 75	
Poulin, N.		332 50	
Reid, J.		402 50	
Sailor, H.		343 75	
Seeley, C. F.		347 50	
Snider, F.		217 75	
Spanial, J.		308 00	
Stubbs, W. J.		310 00	
Tongas, J.		52 50	
Trudeau, N.		310 00	
Turner, S.		343 75	
Wells, Geo.		355 00	
<i>Nepigon Reserve, \$27,752.36.</i>			
Allen, Wm.		437 25	
Ashcroft, Geo.		175 00	
Baker, A.		366 00	
Barton, J.		437 25	
Blanchard, G.		211 75	
Bliss, L. E.	Disbursements	616 24	
Boissoneault, J.		437 25	
Bouchard, J.		598 50	
Cameron, P.		79 75	
Clark, W. R.		132 50	
Disando, M.		192 50	
Deschamp, D.		102 50	
Dumont, O.		420 75	
Esquaga, L.		212 50	
Farrel, C.		120 00	
Finlayson, J.		397 50	
Finlayson, D.		227 50	
Fitzback, J.		490 50	
Fitzback, D.		65 00	
Fitzpatrick, P.		437 25	
Florence, E.		192 50	
Godehere, J.		155 00	
<i>Carried forward</i>		81,305 13	528,044 46

Appendix No. 6.—Continued.

Service.	\$ c.	\$ c.	\$ c.
<i>Brought forward</i>		81,305 13	528,044 46
FOREST RESERVES.—Continued.			
Nepigon Reserve.—Continued.			
Graham, D.		195 00	
Hardy, F.		437 25	
Hardy, R.		317 25	
Harper, G.		195 00	
Hendrickson, C.		3 75	
Holmes, J. A.		167 75	
Howson, B.		152 50	
Johnson, Wm.		7 50	
Kebuck, J.		2 50	
King, J.		347 50	
King, S.		397 50	
Kitcheinni, C.		180 00	
Lagard, L.		50 00	
Larone, Geo.		240 25	
Lash, A.		437 25	
Lavesque, J.		397 50	
Leo, P.		397 50	
Mann, L.		376 75	
Michael, S.		198 00	
Micholson, Geo.		120 00	
Micholson, C.		36 00	
Micholson, J.		407 50	
Mimault, E.		192 50	
Moore, H.		202 50	
Morriseau, J.		55 00	
Morriseau, P.		333 75	
Morrow, S.		437 25	
McDonald, M. C.		397 50	
McKechnie, J. A.	925 00		
Disbursements	217 58		
		1,142 58	
McLean, C. O.		208 00	
McLeod, E. H.	1,050 00		
Disbursements	5,137 29		
		6,187 29	
Nanee, T.		15 00	
Nanakowagosh, P.		195 25	
Nelson, A.		167 50	
Netamegesic, F.		195 00	
Netamegesic, Fred.		202 50	
Netamegesic, E.		170 00	
Newington, H.		305 00	
Nadon, P.		172 50	
Oscopekeda, J.		67 50	
Peters, J.		120 00	
Plouffe, W.		182 50	
Ponton, R.		3 75	
Porter, Thos.		291 75	
Poile, Joseph		191 75	
Poile, John		221 25	
Rae, A.		332 75	
Rudolph, L.		437 25	
Shapwakessic, O. M.		202 75	
Shapwakessic, A.		192 50	
Smith, H.		480 00	
Sutherland, J.		50 00	
Tepiscookeesic, P.		211 75	
Thompson, J.		503 50	
<i>Carried forward</i>		100,437 50	528,044 46

Appendix No. 6.—Continued.

Service.	\$ c.	\$ c.	\$ c.
<i>Brought forward</i>		100,437 50	528,044 46
FOREST RESERVES.— <i>Concluded.</i>			
Nepigon Reserve.— <i>Concluded.</i>			
Viccars, T. R.		385 50	
Vincent, J.		437 25	
Wadow, J.		280 00	
Ward, J.		44 00	
Watt, Thos.		2 50	
Watt, Moses		3 75	
Wawea, A.		120 00	
Willan, Wm.		652 25	
Wilson, F.		189 75	
<i>Eastern Reserve, \$2,704.17.</i>			
Bishop, John		350 00	
Brown, H.		350 00	
Gilmour, E.		350 00	
Hughes, Geo.		350 00	
Laundry, A.		332 50	
Tapping, Thos.	600 00		
Disbursements	21 67		
		621 67	
Young, Wm.		350 00	
<i>Sibley Reserve, \$100.00.</i>			
Oliver, J. A.		100 00	
			105,356 67
CULLERS' ACT.			
Oliver, J. A. Disbursements			10 40
REFORESTRATION.			
Bell Telephone Company	35 78		
Express and cartage	38 13		
		73 91	
Supplies		1,018 18	
Labor		4,721 39	
Sundries		262 18	
			6,075 66
MINES AND MINING.			
Miller, W. G. Provincial Geologist, services	5,000 00		
Disbursements	413 54		
		5,413 54	
Knight, C. W., 1st Assistant Geologist, services ...	2,500 00		
Disbursements	924 19		
		3,424 19	
Burrows, A. G., 2nd Assistant Geologist, services ..	2,350 00		
Disbursements	593 89		
		2,943 89	
Hopkins, P. E., 3rd Assistant Geologist, services ..	1,800 00		
Disbursements	609 30		
		2,409 30	
Rogers, W. R., Topographer, services	1,950 00		
Disbursements	43 35		
		1,993 35	
Bell, W. J., Cartographer, services		1,600 00	
<i>Carried forward</i>		17,784 27	639,487 19

Appendix No. 6.—Continued.

Service.	\$ c.	\$ c.	\$ c.
<i>Brought forward</i> .....	.....	17,784 27	639,487 19
<i>MINES AND MINING.—Continued.</i>			
Mickle, G. R., Mine Assessor, services	4,200 00	4,544 45	
Disbursements	344 45		
Godson, T. E., Mining Commissioner, services....	4,500 00	7,572 58	
Morris, W. H., Mining Commissioner's Clerk, services	1,600 00		
White, Miss N., Stenographer	410 68		
Disbursements	1,061 90		
Sutherland, T. F., Chief Inspector of Mines, services	2,700 00	3,458 50	
Disbursements	758 50		
Collins, E. A., 1st Assistant Inspector of Mines, services	2,400 00	3,488 19	
Disbursements	1,088 19		
McMillan, J. G., 2nd Assistant Inspector of Mines, services .....	.....	1,670 00	
Bartlett, J., 3rd Assistant Inspector of Mines, services	1,728 50	1,817 49	
Disbursements	88 99		
Stovel, J. H., 4th Assistant Inspector of Mines, services	2,400 00	3,909 60	
Disbursements	1,509 60		
Jackson, P. A., Surveyor, services .....	.....	619 11	
McArthur, T. A., Inspector of Recorder's Offices, services	800 00	1,213 30	
Disbursements	413 30		
Beno, J. W., services	449 02	782 32	
Disbursements	333 30		
Oleary, J. F., services .....	.....	48 00	
Devanney, Thos., services .....	.....	22 00	
Foisy, F., services .....	.....	126 00	
Hawley, J. E., services	247 50	286 50	
Disbursements	39 00		
Kerr-Lawson, D. E., services .....	.....	156 92	
Ledoux, Prof. A., services	692 29	1,417 66	
Disbursements	725 37		
Moffatt, Miss A., services .....	.....	100 00	
Morgan, C. B., services	50 00	63 32	
Disbursements	13 32		
Moreau, Albert, services .....	.....	28 50	
Near, A. E., services	700 00	907 85	
Disbursements	207 85		
Parsons, Prof. A. L., services	423 08	823 67	
Disbursements	400 59		
Scott, John, services	750 00	961 35	
Disbursements	211 35		
King's Printer .....	.....	446 96	
Express .....	.....	11 00	
<i>Carried forward</i> .....	.....	52,259 54	639,487 19

Appendix No. 6.—Continued.

Service.	\$ c.	\$ c.	\$ c.
<i>Brought forward</i>		52,259 54	639,487 19
<i>MINES AND MINING.—Concluded.</i>			
Telegraphing		108 88	
Typewriters, repairs, etc.		107 30	
Sundries		102 93	
			52,578 65
<i>RESEARCH WORK.</i>			
Clarke, A. L., services			833 33
<i>MINING RECORDERS.</i>			
Browning, A. J., Recorder	1,150 00		
Loudon, W. E., Clerk	270 39		
Boyer, P. H., Clerk	112 50		
Disbursements	920 74		
		2,453 63	
Campbell, C. A., Recorder	975 00		
Shanahan, Miss M., Stenographer	538 46		
Loudon, W. E., Clerk	171 15		
Disbursements	389 30		
		2,073 91	
Gauthier, G. H., Recorder	1,500 00		
O'Brien, J. D., Clerk	1,066 74		
Loudon, W. E., Clerk	131 53		
Disbursements	1,144 10		
		3,842 37	
Hough, J. A., Recorder	1,300 00		
Ginn, H. G., Clerk	939 86		
Powers, Miss E. M., Stenographer	335 00		
Loudon, W. E., Clerk	426 16		
McGonigal, Miss G., Stenographer	242 50		
Disbursements	1,227 99		
		4,471 51	
Miller, N., Recorder	1,050 00		
Disbursements	159 15		
		1,209 15	
Morgan, J. W., Recorder	1,050 00		
Disbursements	513 20		
		1,563 20	
Morgan, M. R., Recorder	950 00		
Disbursements	322 39		
		1,272 39	
McAulay, N. J., Recorder	1,850 00		
Sarsfield, J. M., Clerk	1,225 00		
Loudon, W. E., Clerk	134 62		
Munro, Miss E., Stenographer	782 50		
Smith, Miss M., Stenographer	210 00		
Disbursements	790 52		
		4,992 64	
McQuire, H. F., Recorder	500 00		
Disbursements	158 93		
		658 93	
Sheppard, H. E., Recorder		814 50	
Skill, A., Recorder		611 93	
Spry, W. L., Recorder	825 00		
Disbursements	118 20		
		943 20	
Express	70 04		
King's Printer	937 20		
Telegraphing	10 55		
		1,017 79	
<i>Carried forward</i>			25,925 15
			718,824 32

Appendix No. 6.—Continued.

Service.	\$ c.	\$ c.	\$ c.
<i>Brought forward</i>			718,824 32
PROVINCIAL ASSAY OFFICE.			
Leat, Arthur		357 84	
McNeill, W. K.	1,900 00		
Disbursements	60 60		
		1,960 60	
Rothwell, T. E.	1,325 00		
Disbursements	161 20		
		1,486 20	
Todd, E. W.		179 99	
Supplies	859 28		
Disbursements	232 92		
		1,092 20	
EXPENSES NOT OTHERWISE PROVIDED FOR.			5,076 83
Canadian Northern Express Co., express		1 52	
Fensom, G. R., supplies		14 05	
Parsons, Prof. A. L. ....disbursements.....		123 56	
			139 13
MINERAL DISPLAYS AT EXHIBITIONS.			
Aikins, W. E., Services <i>re</i> Toronto Exhibition.....		8 75	
Green, W. F., Services <i>re</i> Toronto Exhibition.....		56 00	
Stephens, J., Services <i>re</i> Toronto Exhibition.....		8 00	
West, W. J., Services <i>re</i> Toronto Exhibition.....		40 00	
General Disbursements <i>re</i> Toronto Exhibition.....		1,157 60	
			1,270 35
LEGAL ASSISTANCE ENFORCING MINING ACT.			
Donovan, T., Expenses <i>re</i> case of J. Osmak.....			30 95
SOCIETY MEMBERSHIP FEES.			46 00
SURVEYS			43,214 76
BOARD OF SURVEYORS			200 00
INVESTIGATION OF TREE DISEASES			13,734 87
INSURANCE			360 23
ALLOWANCE TO SCHOOL SECTIONS IN TOWNSHIP OF SOUTH WALSHINGHAM			150 00
CANADIAN FORESTRY GRANT			300 00
REFUNDS—Miscellaneous			8,993 80
COLONIZATION AND IMMIGRATION.			
PRINTING, ADVERTISING, ETC.		16,702 71	
ADVANCE COST OF FARM LABOURERS' TRANSPORTA TION		536 65	
LAND GUIDES		1,259 00	
EMIGRATION WORK IN GREAT BRITAIN		20,243 64	
ALLOWANCE TO RICHARD REID		3,188 00	
RENTAL IMMIGRATION OFFICE		1,882 07	
TRAVELLING EXPENSES LONDON OFFICIALS		182 81	
IMPERIAL TAX		481 22	
WOMEN'S WELCOME HOSTEL		1,400 00	
WOMEN'S HOSTEL AND TRAVELLERS' AID		500 00	
			46,376 10
CONTINGENCIES.			
<i>Departmental.</i>			
Printing and Binding	2,642 20		
Stationery	6,948 47		
		9,590 67	
<i>Carried forward</i>		9,590 67	838,717 34

Appendix No. 6.—Continued.

Service.	\$ c.	\$ c.	\$ c.
<i>Brought forward</i>		9,590 67	838,717 34
<i>CONTINGENCIES.—Continued.</i>			
<i>Departmental.—Concluded.</i>			
Postage	2,599 45		
Express	327 54	2,926 99	
Telegraphing	605 71		
Car Fare	60 00	665 71	
Subscriptions	580 78		
Advertising	15,834 06	16,414 84	
Typewriters and repairs		1,302 53	
Ferguson, Hon. G. H., travelling expenses	500 00		
Grigg, A., travelling expenses	55 72		
Hele, C. C., travelling expenses	137 12		
Hutcheon, J., disbursements	516 88		
Rorke, L. V., disbursements	100 00		
Keefer, F. H., legal services	1,757 30		
White & Williams, legal services	58 52		
Rice, Lewis & Son, surveyor's posts	440 00	3,565 54	
Extra Clerks	7,774 72		
Maps	5,720 54		
Sundries	175 76	13,671 02	
			48,137 30
<i>Bureau of Mines.</i>			
Printing and Binding	1,275 49		
Stationery	3,142 24	4,417 73	
Postage	1,125 30		
Telegraphing	57 15		
Express and Cartage	77 55		
Advertising	1,242 50		
Subscriptions	148 58		
Maps	323 01	2,974 09	
Typewriters, repairs, etc.	452 50		
Dunn, A. J., searching titles	100 10		
Gibson, T. W., travelling expenses	27 00	579 60	
Extra Clerks	2,187 93		
Sundries	203 15	2,391 08	
			10,362 50
<i>Forestry.</i>			
Zavitz, E. J., travelling expenses	189 76		
White, J. H., travelling expenses	14 50	204 26	
Postage	300 51		
Typewriters, etc.	439 00		
Extra Clerks	746 68		
Supplies	302 36		
Sundries	106 56	1,895 11	
			2,099 37
<i>Colonization.</i>			
Printing and Binding	37 93		
Stationery	361 71	399 64	
<i>Carried forward</i>		399 64	899,316 51

Appendix No. 6.—Concluded.

Service.	\$ c.	\$ c.	\$ c.
<i>Brought forward</i>	399 64	899,316 51
<i>COLONIZATION.—Concluded.</i>			
Postage	860 00	985 85	
Express and Cartage	125 85		
Telegraphing	135 81	230 26	
Subscriptions	41 20		
Typewriters, repairs, etc.	53 25		
Argue, J., travelling expenses	36 70	2,222 01	
Bindon, F. W., travelling expenses	427 40		
Farrell, John, travelling expenses	293 54		
Jones, R. A., travelling expenses	514 05		
Macdonell, H. A., travelling expenses	137 15		
Thompson, J., travelling expenses	329 42		
Tutt, H., travelling expenses	431 86		
Sundries	51 89		
		2,222 01	3,837 76
			903,154 27

D. GEO. ROSS,

Accountant.

ALBERT GRIGG,

Deputy Minister of Lands and Forests.

Appendix No. 7.

Statement of expenses on account of various services under the direction of the Department of Lands, Forests and Mines, for the year ending October 31st, 1917.

Service.	\$ c.	\$ c.
ALGONQUIN PARK	28,596 23	
ALGONQUIN PARK, CLEANING RIGHT-OF-WAY	5,027 66	
		33,623 89
QUETICO PROVINCIAL PARK		9,056 50
VETERANS' COMMUTATION		150 00
ROYAL NICKEL COMMISSION		45,721 64
LEGAL INVESTIGATIONS		2 90
		88,554 93

D. GEO. ROSS,
Accountant.

ALBERT GRIGG.
Deputy Minister of Lands and Forests.

Appendix No. 8.

PATENTS OFFICE (LANDS BRANCH).

Statement of Patents, etc., issued from 1st November, 1916, to 31st October, 1917.

Public Lands (late Crown).....	462
" " (late School).....	22
" " (late Clergy Reserves).....	7
" " (University)	8
Free Grant Lands (Act of 1913)	298
" " (Act of 1901) (Veterans)	195
Mining Lands (Patents).....	542
" " (University).....	3
Mining Leases	138
Crown Leases.....	24
Licenses of Occupation	53
Timagami Island Leases	4
Sand and Gravel Licenses.....	22
Total.....	1,778

CHARLES S. JONES,
Patents Clerk.
W. C. CAIN,
Chief Clerk in Charge.

ALBERT GRIGG,
Deputy Minister of Lands, Forests and Mines.

Appendix

WOODS AND

Statement of Timber and Amounts accrued from Timber Dues, Ground

QUANTITY AND

Agencies.	Area covered by timber licenses.	Saw logs.				Boom and	
		Pine.		Other.		Pine.	
	Square miles.		Feet B.M.	Pieces.	Feet B.M.	Pieces.	Feet B.M.
Western Timber District	10,168 $\frac{1}{4}$	5,105,001	187,349,181	772,450	26,731,557	75,342	8,490,009
Belleville Timber District	872	17,431	563,449	60,921	2,385,855	39	5,842
Ottawa Timber District	5,273 $\frac{1}{2}$	315,205	11,471,952	159,528	5,037,261	2,490	265,644
	16,313 $\frac{3}{4}$	5,437,637	199,384,582	992,899	34,154,673	77,871	8,761,495

General Statement

Agencies.	Railway Ties.	Posts.	Poles.	Stave Bolts.	Pulpwood,		
		Cords.	Pieces.	Cords.	Cords.	Transfer bonus.	Interest.
Western Timber District	1,542,610	715	5,321	1,390	207,654	\$ 5,485 c. 00	\$ 18,488 c. 25
Belleville Timber District	1,211	9	.....	.....	151	400 10	1,305 25
Ottawa Timber District	1,005	660	768	.....	15,866	780 00	1,295 61
	1,544,826	1,381	6,089	1,390	223,671	6,665 10	21,089 11

JOHN HOUSER,
Chief Clerk in Charge.

No. 9.

FORESTS.

Rent and Bonus during the year ending 31st October, 1917.

DESCRIPTION OF TIMBER.

Dimension.		Cedar.	Piling.				Cordwood.		Tan Bark.
Other.							Hard.	Soft.	
Pieces.	Feet B.M.	Lineal feet.	Lineal feet.	Pieces.		Cords.	Cords.	Cords.	
23,248	2,392,247	2,424	168,363	5,845	328,992	29,104	22,979	3,106	
536	85,711	.....	.....	.....	.....	.....	.....	54
3,810	466,714	.....	.....	.....	.....	2,855	526	772
27,594	2,944,672	2,424	168,363	5,845	328,992	31,959	23,505	3,932	

of Timber.—Concluded.

Amounts accrued.

Trespa		Bonus.		Deposits timber sales.	Ground rent.	Fire protection.	Total.
\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.
10,483 80	621,333 63	466,094 59	125,000 01		64,815 00	86,604 26	1,398,304 54
717 19	3,447 01	376 96	.....		5,593 00	.....	11,839 51
329 22	26,329 91	.....	.....		28,461 86	28,722 80	85,919 40
11,530 21	651,110 55	466,471 55	125,000 01		98,869 86	115,327 06	1,496,063 45

ALBERT GRIGG,
Deputy Minister.

Appendix No. 10.

WOODS AND FORESTS BRANCH.

Statement of revenue collected during the year ending October 31st, 1917.

Amount of Western collections at Department	\$1,543,893 94
do Belleville collections at Department	19,046 13
do Ottawa collections at Department	132,763 01
	<hr/>
	\$1,695,703 08

WOODS AND FORESTS BRANCH REVENUE,

October 31st, 1917.

WESTERN DISTRICT—

Timber dues	\$728,513 97
Bonus	515,032 45
Ground rent	64,815 00
Interest on dues	18,059 79
Interest on ground rent	428 46
Transfer fees	5,485 00
Timber sale deposit	125,000 01
Fire protection	86,604 26
	<hr/>
	\$1,543,938 94

OTTAWA DISTRICT—

Timber dues	\$73,457 74
Ground rent	28,461 86
Interest on dues	812 21
Interest on ground rent	483 40
Transfer fees	780 00
Fire protection	28,722 80
	<hr/>
	132,718 01

BELLEVILLE DISTRICT—

Timber dues	\$10,944 89
Bonus	802 89
Ground rent	5,593 00
Interest on dues	678 64
Interest on ground rent	626 61
Transfer fees	400 10
	<hr/>
	19,046 13
	<hr/>
	\$1,695,703 08

WOODS AND FORESTS.

Bonus	\$640,835 35
Timber dues	832,467 24
Ground rent	100,408 33
Transfer fees	6,665 10
Fire protection	115,327 06
	<hr/>
	\$1,695,703 08

JOHN HOUSER,
Chief Clerk in Charge.

ALBERT GRIGG,
Deputy Minister.

Appendix No. 11.

Statement of work done in the Military Office, Lands Branch of the Department of Lands, Forests and Mines, during the year ending October 31st, 1917.

References for Veteran Patents issued	153
Locations under military certificates	87
Certificates applied in payment of lands	14
Certificates surrendered for commutation money	3
Letters received	1,890
Letters written	2,100
Special letters to agents	320
Special letters to mining recorders	110
Maps and reports supplied to veterans	470
Printed forms sent out	450
Copies of Veteran Act supplied	30

H. E. JOHNSTON,
Military Clerk.
W. C. CAIN,
Chief Clerk in Charge.

ALBERT GRIGG,
Deputy Minister.

Appendix No. 12.

LIST OF CULLERS.

Anderson, M. M.	Almonte.	Brown, Silas	Klock's Mills.
Allan, James D.	Bracebridge.	Boland, W. G.	Eganville.
Appleton, Erwin B.	Bracebridge.	Baulke, George R.	Aylmer, Que.
Albert, Andrew	Ottawa.	Bouchey, Arthur	Massey.
Adams, J. Q.	Longford Mills.	Buchanan, Mark	Trout Mills.
Anderson, Patrick J	Campbellford.	Barrett, W. J.	Thessalon.
Anderson, J. C.	Gravenhurst.	Bromley, Thomas	Pembroke.
Allan, Alfred	Ottawa.	Bremner, John L.	Adamston.
Allen, R. A.	Bannockburn.	Breen, Bernard	Garden River.
Aikens, Geo. M.	French River.	Buie, Dougal	Providence Bay.
Appleby, Ridley	Katrine.	Baker, Thomas	Blind River.
Adams, James M.	Sault Ste. Marie.	Blais, Felix	Hull, Que.
Aylward, James	Peterborough.	Balsdon, George	Keewatin.
Archibald, John L.	Keewatin.	Bromley, W. H.	Pembroke.
Austin, Wm. G.	Renfrew.	Bowers, Isaac	Little Current.
Anderson, Charles	Little Current.	Brown, Thomas	Barrie.
Anderson, John	Cartier.	Bass, Walter R.	W. Huntingdon.
Adair, Thomas Albert ..	Gananoque.	Bates, Robert	Kenora.
Anderson, J. G.	Alpena, Mich.	Binnie, Thomas	Port Arthur.
Alexander, Samuel	Arden.	Blair, William	Keewatin.
Adams, Wm.	Westmeath.	Bick, Thomas	Bobcaygeon.
Arkle, George	Kenora.	Burke, John Thomas ..	Midland.
Armstrong, Jas. Theodore.	McKellar.	Buchan, Sterling	L'Orignal.
Armstrong, Thomas J.	Arnprior.	Brown, Joseph A.	Spanish.
Acheson, Ira M.	Westmeath.	Baird, P. C.	Rainy River.
Albert, Alfred E.	Ottawa.	Brill, J. W.	Mine Centre.
Alma, John E.	Hawkesbury.	Beattie, Arthur W.	Arnprior.
Adams, George A.	Longford.	Brock, H. S.	Ottawa.
Ansley, John Albert	Thessalon.	Benson, John Bird	Midland.
Ansley, John Jenkins	Thessalon.	Brennan, Rich'd Lawrence	Peterborough.
Ainslie, Alexander	Spanish.	Brown, Hugh Riside	Huntsville.
Apleton, E. A.	Kenora.	Bryan, Frank	Keewatin.
Arnill, William	Iron Bridge.	Bennett, Edward Clinton	Ahmic Harbour.
Adams, Fred.	L'Orignal.	Blaine, Harvie Thomas ..	Orillia.
Alexander, R. Harvey	Spragge.	Barrett, Thomas	Barrie.
Alexander, J. Albert	Spragge.	Bickell, James Manuel...	Sault Ste. Marie.
Ainslie, Donald McF.	Whitestone.	Buisson, William	Sudbury.
Ansley, William	Thessalon.	Borrett, James A.	Sault Ste. Marie.
Argues, W. A.	Keeney.	Bliss, C. Lidden	Sudbury.
Almers, John	Kenora.	Bray, James	Kinmount.
Allard, Telesphore Jos....	W. Fort William.	Bremner, George	Arnprior.
Andrews, Geo. E.	Massey.	Bromley, Samuel	Pembroke.
Brophy, Michael Patrick.	Massey Station.	Brown, A. C.	Fitzroy Harbour.
Boland, Abraham	Cartier.	Berlinquet, Julius	Opimicon, Que.
Brown, Singleton	Bracebridge.	Blastorah, Fred. L.	Harwood.
Barry, Thomas James	Hastings.	Burns, Clifton H.	Little Current.
Blanchet, Paul Fred'k....	Ottawa.	Beaumont, Ernest	Parry Sound.
Bird, W. S.	Parry Sound.	Beattie, Alex.	Whitney.
Bayley, James T.	Gravenhurst.	Brennan, Reginald	Gravenhurst.
Bell, Henry	Ottawa.	Boyd, George	Gravenhurst.
Beach, Herbert Mahlon	Ottawa.	Bissell, Geo. Thomas	Trenton.
Barry, Thomas	Millbridge.	Baxter, Richard	Deseronto.
Beatty, W. R.	Parry Sound.	Breeaugh, Edward	Deseronto.
Brooks, Frederick Wm.	Mackay's Station.	Boyd, Geo. A.	Thessalon.
Brown, Robt. D.	Port Sidney.	Buchan, Frederick	Arnprior.
Breed, Arthur G.	Penetanguishene.	Bradbury, Kerwood	Blind River.
Barnes, Thomas Geo. Lee.	Muskoka Mills.	Belanger, John B.	Mattawa.
Buchanan, Robert	Coldwater.	Bird, J. F.	Bracebridge.
Beck, Jacob Frederick	Penetanguishene.	Beddome, W. E.	Dryden.
Bird, Joseph Manly	Muskoka Mills.	Barrett, Patrick	Arnprior.
Boyd, John F.	Thessalon.	Brundage, Alfred W.	Pembroke.
Brandon, Martin W.	Peterborough.	Brougham, Thomas	Eganville.
Bell, John C.	Peterborough.	Blair, Robert I.	Arnprior.
Bartlett, George W.	Warren.	Benson, John W.	Sturgeon Bay.

*Appendix No. 12.—Continued.*LIST OF CULLERS.—*Continued.*

Beck, Chas. M., Jr.	Penetanguishene.	Cochrane, George	Peterborough.
Beatty, W. J.	Coldwater.	Coburn, John	Lindsay.
Burns, C. W., Jr.	South River.	Crewe, Nathaniel	Bobcaygeon.
Bell, John Henry	Burk's Falls.	Cameron, Alexander ...	Norman.
Berry, Harold	Labelle, Q.	Chrysler, Frank R. L. ...	Webbwood.
Black, George	Barwick.	Callaghan, Thomas, Jr. ..	Campbellford.
Bettes, John Hiram	Muskoka Mills.	Carson, Hugh	Kenora.
Brady, John	Renfrew.	Calder, George	Woodville.
Brown, James	Buckingham, Q.	Callaghan, Dennis	Campbellford.
Brooks, W. J.	Blind River.	Corrigan, Robt. T.	Emo.
Bertrand, Allan	Nairn Centre.	Cameron, John H.	Kenora.
Brinkman, Alex. B.	Sault Ste. Marie.	Carson, Melvin	Little Current.
Black, Jacob	Barwick.	Cameron, John K.	Spanish River.
Beattie, W. J.	Arnprior.	Cassidy, William	Little Current.
Bromley, William	Westmeath.	Coons, Geo. Washington ..	Peterborough.
Bissell, Hartie	Trenton.	Chisholm, Geo. Leopold ..	Sault Ste. Marie.
Brown, Robert	Starrat.	Clark, Wm. J.	Birkendale.
Beaton, Hugh	Waubashene.	Carr, Herbert E.	North Bay.
Bailey, Arthur	Farry Sound.	Cochrane, Alfred L.	Muldoon, Que.
Burd, James Henry	Farry Sound.	Campbell, George	Fort Frances.
Bailey, Samuel James ..	Orillia.	Chalmers, George James ..	Peterborough.
Burton, Tinswood	Renfrew.	Caverly, David Charles ..	Parry Sound.
Boyes, James	Huntsville.	Campbell, Archibald J. ...	Little Current.
Brown, John	Rockdale.	Close, John L.	Arnprior.
Brennan, Edward (Scott.)	Sundridge.	Carmichael, Donald	Arnprior.
Bell, John Arguey	Klock's Mills.	Carty, John	Arnprior.
Bromley, Edw. H.	Pembroke.	Cleary, Patrick M.	Arnprior.
Bliss, Lawrence E.	Byng Inlet.	Caldwell, James M.	Callender.
Buee, Neil	Spanish Station.	Cushing, John J.	Davidson, Que.
Brazziel, Leonard	Spanish Station.	Crebo, William	Thessalon.
Bowie, James	Bryson, Que.	Cullen, Michael J.	Massey Station.
Barrie, Nicholas J.	Ottawa.	Cuthbertson, William ...	Arnprior.
Burke, J. D.	Kenora.	Carss, Percy	Thessalon.
Bowen, Thomas	Deseronto.	Coghlan, Michael	Chapeau, Que.
Brown, James F.	Baysville.	Cameron, Alexr. Gordon ..	Beauchene, Q.
Blastorah, Bernard	Harwood.	Cassaday, W. W.	Emo.
Brannan, William H.	Pembroke.	Carter, Robert E.	Fesserton.
Bromley, Thomas	Webbwood.	Coleman, Jos.	Baysville.
Barr, J. C.	Fort Frances.	Cardiff, Geo. McDougall ..	Sudbury.
Bradley, J. M.	Mine Centre.	Cameron, W. D.	Kenora.
Burns, Dominick	Webbwood.	Crandal, F.	Port Arthur.
Blaikie, Campbell D.	Fort Frances.	Campbell, James R.	Eganville.
Bury, Henry J.	Stratton.	Campbell, John A.	Galleta.
Brown, R. A.	Cartier.	Caillier, Hyacinth	Arnprior.
Brouse, Silas	Webbwood.	Chamberlain, Thomas ...	Bobcaygeon.
Byrne, James	Kenora.	Cooper, David Allan	Millbrook.
Buchan, A.	Ft. William.	Cox, Henry	Ballerica, Que.
Bailey, Alex.	Thor Lake.	Currie, James	Ottawa.
Bennett, Oscar T.	Little Current.	Clarkson, A. E.	Midland.
Campbell, Robert John ..	Flinton.	Clairmont, E.	Gravenhurst.
Carpenter, John A.	Arnprior.	Cameron, W. F.	Sturgeon Bay.
Campbell, Alex. J.	Trenton.	Connolly, David	Gravenhurst.
Carson, James	Bracebridge.	Campbell, P. C.	Sault Ste. Marie.
Campbell, J. M.	Bracebridge.	Cadenhead, Alexander ...	Midland.
Campbell, Robert	Bracebridge.	Carpenter, R. J.	Arnprior.
Clairmont, Joseph	Campbellford.	Christie, William Pringle ..	Severn Bridge.
Clarkson, Robert J.	Parry Sound.	Campbell, C. V.	Sault Ste. Marie.
Carruthers, Aaron	Hintonburg.	Clegg, Samuel	Peterborough.
Calder, Wm. J.	Bark Lake.	Clairmont, William L. ...	Gravenhurst.
Chew, Joseph	Gravenhurst.	Cook, Sydney P. W.	Spanish Station.
Cole, James Colin	Ottawa.	Corrigan, John	Baysville.
Cameron, Wm.	Collin's Inlet.	Chalmers, Alexander M. ...	Peterborough.
Cain, Robert	Midland.	Charlton, George A.	Collingwood.
Crawford, Stephen W. ...	Thessalon.	Cahill, Thomas	Nosbonsing.

*Appendix No. 12.—Continued.*LIST OF CULLERS.—*Continued.*

Chew, Manley	Midland.	Dillon, John	Calabogie,
Cooper, James Eddy	Saurin.	Durrell, Jos. Nelson	P't'ge du Ft., Q.
Cook, Reinhardt	South River.	Durrell, John	Callender.
Crowe, Cecil	Bobcaygeon.	Donally, Richard S.	Sudbury.
Callaghan, Denis	Trenton.	Devine, William	Cook's Mills.
Collins, James	Barryville.	Durill, William	Nosbonsing.
Claffey, Edward D.	Fort William.	Draper, Patrick	Quyon, Que.
Coyne, Phin	Chelmsford.	Davis, J. P.	Bobcaygeon.
Constantine, Eudore	Blind River.	Dale, John Alexander ...	Birkendale.
Cameron, Ewan	Gordon Lake.	Dinsmore, Chas. L.	Huntsville.
Campbell, Daniel N.	Buck'gham, Que.	Drum, Patrick	Belleville.
Canniff, R. W.	Kenora.	Durham, Edgar S.	Rosseau.
Cassidy, S. C.	Dunchurch.	Duquette, Chas.	Webbwood.
Charleston, John Baptiste.	Ottawa.	Davis, William Albert ..	Bobcaygeon.
Comer, Billa F.	Tweed.	Dickson, Robert Alexander	Keene.
Carter, George	Sundridge.	Dawkins, John	Gravenhurst.
Corrigan, Robt. J.	Emo.	Doxsee, James E.	Gravenhurst.
Caswell, Grant	Coldwater.	Didier, L. P.	Aylmer, Que.
Caswell, Geo.	Coldwater.	Devine, Patrick J.	Sheenboro, Que.
Chemir, David A.	Pembroke.	Dinsmore, Richard	Huntsville.
Clairmont, Philadelp L.	Gravenhurst.	Dunn, Percy E.	Longford Mills.
Crowe, Edgerton	Bobcaygeon.	Duval, Chas.	Halfway.
Castonquay, A. C.	Chelmsford.	Donlevy, James	Calabogie.
Clark, Donald Allan	Port Arthur.	Doris, Patrick	Peterborough.
Charette, Herbert	Devlin.	Doris, John	Peterborough.
Christie, Uriah W.	Fort Frances.	Donahue, Michael	Erinsville.
Clark, Joseph C.	Fort Frances.	Doran, W.	Belleville.
Crowe, Leslie	Bobcaygeon.	Dickson, Robert R.	Kippewa, Que.
Campbell, Duncan W.	Stewartville.	Donlevy, Wm. C.	Rockcliffe.
Callahan, Thomas N.	Arnprior.	Duff, Chas. A.	Stewartville.
Clements, Albert James ..	Bent River.	Dean, James C.	Kenora.
Carney, Albert	Sault Ste. Marie.	Duff, Peter A.	Claybank.
Collins, Arthur	Massey Station.	Duncan, Downey	Rainy River.
Carter, George	Lavelle, Que.	Dougherty, J. M.	Fort Frances.
Chitty, Alfred E.	Kenora.	Dunn, John F.	Spanish Mills.
Cardiff, Richard J.	Arnprior.	Dyke, Morris F.	Blind River.
Conway, Thomas	Barry's Bay.	Devitt, Frank	Dinorwic.
Costello, Thomas M.	Antrim.	Dickie, David	Port Arthur.
Cross, R. J.	Silver Islet.	Dupuis, Alfred	Keewatin.
Clark, R. H.	Port Arthur.	Devlin, Samuel	Spanish Mills.
Clark, Wm. R.	Port Arthur.	Dougherty, W. H.	McLaren's Bay.
Coombs, A. B.	Bracebridge.	Duffy, William A.	Callender.
Cameron, A. F.	Emo.	Duncan, Edward J.	Sturgeon Falls.
Campbell, J. S.	Fort Frances.	Dennie, Frank	Capreol.
Clearihue, Geo. A.	{ 784 Hubert St., Montreal, Que.	Dempsey, James	Pulp Siding.
Cuddihey, J. T.	Pembroke.	Enlaw, Oliver	Campbellford.
Cameron, Ronald	Ignace.	Ebert, Andrew P.	Pembroke.
Cole, J. E.	Kenora.	Ellis, Alexander	Arnprior.
Currie, J. E.	Kenora.	Ellis, John	Westmeath.
Carroll, Peter	McDougall's Mills.	Errington, Joseph	Sundridge.
Clempson, A. J.	Dryden.	Eddington, Henry John ..	Farry Sound.
Didier, Hector	Mattawa.	Enright, Daniel	Port Arthur.
Doran, Frank	Barryville.	Eager, James	Parry Sound.
Dunning, E. Percival	Parry Sound.	Elliott, Porter P.	Mine Centre.
Duff, R. J.	Arnprior.	Elliott, William	Cache Bay.
Durrill, John W.	Ottawa.	Edgar, J. E.	Kenora.
Dickson, John	Sundridge.	Elliott, George E.	Peterborough.
Dickson, James L.	Michipic'ten Hr.	Edwards, Joseph K.	Gillies Depot.
Dobie, Harry	Sault Ste. Marie.	Eldridge, Robert	Fort Frances.
Deacon, Charles	Sault Ste. Marie.	Fraser, John A.	Kenora.
Danter, R. W.	Parry Sound.	Ferguson, Wm. H.	Red Bay.
Doyle, T. J.	Eau Claire.	Forbes, Chris. McKay ...	McLean's Depot.
Dobie, Alexander R.	Blind River.	Fitzgerald, E. Clair	Parry Sound.
Darling, J. M.	Byng Inlet.	Farrell, W. H.	Ironside, Que.
		French, Lewis William ..	Wisawasa.

*Appendix No. 12.—Continued.*LIST OF CULLERS.—*Continued.*

Fraser, William A.	Mattawa.	Green, Forman A.	Gilmour.
Finerty, Patrick	Rochfort.	Green, Samuel E.	Parry Sound.
Farnand, Frank	Diamond.	Grant, John	Flinton.
Fulton, Philip S.	Spanish Station.	Green, Arthur	Ottawa.
Fitzgerald, Ulyot C.	Parry Sound.	Green, Norman McL.	Bancroft.
Fenn, George	Bracebridge.	Gillis, John J.	Whitefish.
Fortune, Owen	Trenton.	George, R. W.	Parry Sound.
Fraser, David	Norman.	Gardiner, John	Parry Sound.
France, John	Collin's Inlet.	Golden, Frank J.	Trenton.
Ferguson, Ernest A.	Baysville.	Garson, Robert	Thessalon.
Ferguson, Alpen	Mattawa.	Gropp, August	Penetanguishene.
Ford, John William B.	P'r'tage du Ft., Q.	Grozele, Antoine D.	Muskoka Mills.
Ford, Charles	Wahnapiatae.	Goulais, James	Peterborough.
Findlay, J. H.	Braeside.	Grayson, Charles	Keewatin.
Fraser, James	Renfrew.	Gladstone, Harry E.	Cook's Mills.
Fairen, Francis	Peterborough.	Guertin, Oliver	Biscotasing.
Faulkner, Jos.	Fesserton.	Gelinas, Frank	Hull, Que.
Fraser, Alexander, Jr.	Westmeath.	Gwynne, John	Hawkesbury.
Fairbairn, William	Calabogie.	Gray, Frederick M.	Brule Lake.
Fraser, William A.	Pembroke.	Graham, Edward G.	Wahnapiatae.
Fraser, Foster	Pembroke.	Griffin, James	Spanish River.
Fraser, Wm.	Little Current.	Gordon, Alexander B.	Pembroke.
Fraser, Hugh Alexander ..	Pembroke.	Gareau, Noah J.	Pembroke.
Flaherty, John	Lindsay.	Gillies, D. A.	Carleton Place.
Fisher, Wm.	Trenton.	Gilligan, Edward	Mattawa.
Fox, Thomas	Deseronto.	Gladman, Charles	Parry Sound.
Fallis, James W.	Sturgeon Bay.	Garrow, John D.	Ottawa.
Fairbairn, N. H.	Webbwood.	German, William Burton ..	Wahnapiatae.
Friel, John	Trenton.	Gordon, Robert W.	Pembroke.
Fox, Charles	Trenton.	Guertin, Nelson	Petawawa.
Featherstonehaugh, W. H.	Penetanguishene.	Gardner, John	Kenora.
Friar, Schuyler	Westmeath.	Gunter, Peter M.	Gilmour.
Farren, Joel	Savanne.	Glennie, William	Millbridge.
Fraser, Duncan	Big Forks.	German, Maurice J.	Fenelon Falls.
Freestone, Walter	Burk's Falls.	Gillies, John A.	Braeside.
Fraser, John	Bancroft.	Goddin, Edward	Griffith.
Fitzgerald, D. C.	Spanish Station.	Grant, Joseph	Eganville.
Foster, Wm. C.	Searchmont.	Gilmour, James B.	Braeside.
Frazer, Jas. C.	Spanish Mills.	Gorman, Joseph P.	Sault Ste. Marie.
Fremlin, H. P.	Richard's Land'g.	Gordon, Thomas A.	Hall's Bridge.
Foster, Ed. G.	Sault Ste. Marie.	Gray, Albert H.	Biscotasing.
Farrel, Peter M.	Whitefish.	Gadway, John	Parry Sound.
Fairhall, Edward	Whiteside.	Garrow, Edward	Webbwood.
Fraser, Levi	Bracebridge.	Golding, William	Dorset.
Fiddes, James	Rainy River.	Gillies, Harry	White Lake.
Frawley, Frank	Orillia.	Gordon, Herbert C.	Nelson.
Fisher, George	Sault Ste. Marie.	Gillespie, M. H.	Cook's Mills.
Filiatrault, J. A.	Blind River.	Griffin, William	Huntsville.
Farrier, John William ..	Chapeau.	Ganton, David	Trout Creek.
Finney, Benjamin B.	Fort Frances.	Graham, George L.	Arnprior.
Follis, Frank C.	Hawkesbury.	Graham, Frederick S.	Arnprior.
Fortune, Percy H.	Blind River.	Gill, Cuthbert	Orillia.
Fraser, Wm. Foster	Sault Ste. Marie.	Graham, James Robert ..	Kenora.
Fraser, Allan, H.	Thessalon.	Graham, Thomas Jordan ..	Byng Inlet.
Farquharson, James	Tomiko.	Gaudaur, Antoine Daniel ..	Orillia.
Fink, John	Mattawa.	Gorman, Patrick	Eganville.
Fletcher, Nicol B.	Parry Sound.	Guy, Charles	Fort Frances.
Fraser, Darlington	Pembroke.	Graham, George H.	Gillies Depot.
Faulkner, Wm.	Dryden.	Greer, George P.	Port Arthur.
Griffith, Geo. F.	Pembroke.	Gill, Charles	Fort Frances.
Graham, John	Arnprior.	Gamey, William H.	Englehart.
Golden, John	Gilmour.	Gorman, Michael J.	Diver.
Gunter, Henry M.	Trenton.	Grier, Roy B.	Kenora.
Goltz, Ernest	Bardsville.	Greer, Samuel H.	Gore Bay.

*Appendix No. 12.—Continued.*LIST OF CULLERS.—*Continued.*

Gilbert, Sidney N.	Rainy River.	Horne, John T.	Fort William.
Guilbeault, A. T.	Klock's Mills.	Hamilton, Chas. E.	Kenora.
Gordon, J. B.	Cache Bay.	Henderson, Leonard	Baysville.
Gorman, Bert	Kenney Siding.	Hunter, Thos.	Callender.
Hale, Thomas	Pembroke.	Hamilton, Robert J.	Ottawa.
Hogan, Albert J.	Sault Ste. Marie.	Hawkins, William A.	Pembroke.
Hagen, Edmund G.	Little Rapids.	Herring, Edward C.	Sebright.
Hagen, Wilson	Thessalon.	Hatch, J. W.	Dryden.
Hurd, Cyrus	Parry Sound.	Hoard, Wm. Paris	Emo.
Henderson, Albert E.	Burford.	Hartman, W. R.	Blind River.
Hale, John B.	Sault Ste. Marie.	Hill, Ernest L.	Hawkesbury.
Hickerson, Melvin T.	Fort Frances.	Hall, Samuel S.	Marmora.
Howey, George H.	Fort Frances.	Hasleton, Constantine ...	Killaloe.
Hartt, James	Gilmour.	Hamilton, A. J.	Spragge.
Hayes, James	Enterprise.	Heggart, E. C.	Trout Mills.
Humphrey, T. W.	Gravenhurst.	Hunt, Ronald E.	Massey.
Huckson, A. H.	French River.	Hurd, Asahel	Parry Sound.
Handley, Robert	Douglas.	Howe, Peter	Fort Frances.
Howe, Alexander	Queensboro.	Hammond, Samuel H.	Fort Frances.
Hurd, Edwin	Hurdville.	Hunt, Alex. D.	Pearl River.
Huff, J. S. Morris	Arnprior.	Home, John F.	Keewatin.
Halliday, Robert J.	Lindsay.	Hay, Benjamin	Port Arthur.
Hutton, John	Hutton House.	Hogan, John	Savanne.
Hutchinson, Wm. E.	Huntsville.	Hargis, Thomas	Port Arthur.
Hogarth, Joseph Rowan.	Pembroke.	Hartt, I. B.	Orillia.
Humphrey, John	Gravenhurst.	Harkins, J. J.	Keewatin.
Hill, Joshua	Midland.	Hammond, Henry	Dryden.
Hall, David	Lovering.	Hyne, Geo.	Port Arthur.
Hartley, Charles	Peterborough.	Irving, Thos. H.	Parry Sound.
Hawkins, Henry Chas. ...	Blind River.	Irwin, Eli	Kenora.
Hines, Philip Wallace ...	Huntsville.	Irving, Edward C.	Kenora.
Hudson, John Lewis	Combermere.	Johnston, Ralph E.	Port Arthur.
Hurdman, William H. ...	Ottawa.	Johns, Frank A.	Toronto.
Hughes, John	North Bay.	Jackson, Robert	Brechin.
Howie, R. G.	New Liskeard.	Johnson, Finlay	Bracebridge.
Helferty, Dennis	Eganville.	Jones, Albert	Victoria Harbor.
Hamilton, Robert	Kenora.	Johnson, Thomas	Bobcaygeon.
Hoppins, Abiram	Kingston.	Johnston, Archibald M. ...	Norman.
Hoppins, Densmore	Kingston.	Julien, Charles	Trenton.
Haystead, John	Parry Sound.	Junkin, Henry	Marmora.
Henderson, John Irwin ...	Bobcaygeon.	Johns, Frank	Nipiss'g Junct'n.
Hartley, William	Millbridge.	Jessup, Edward D.	Cache Bay.
Higgins, John C.	Peterborough.	Johnson, Frank N.	Ottawa.
Harrison, John, Jr.	Pembroke.	Johnston, John	Peninsular Lake.
Hawkins, E.	La Breton Flats.	Johnson, S. M.	Arnprior.
Henderson, Charles	Bracebridge.	Jones, Frederick James ...	Flinton.
Halliday, Frank	Parry Sound.	Johnston, William A. ...	Castleford.
Hammond, W.	Orillia.	Jervis, Henry	Wisawasa.
Hall, Charles Asa	Penetanguishene.	Jones, William	Fenelon Falls.
Hearl, John	Callender.	James, Martin	The Flats.
Howe, Isaac	Fort Frances.	Johnston, James	Fort Frances.
Halliday, James	Springtown.	Johns, Alexander	Callender.
Hurdman, J. A.	Ottawa.	Jackson, John A.	Barwick.
Hawkins, Stonewall J. ...	Meldrum Bay.	Johnson, Thomas	Fort Frances.
Hinchcliffe, William	Gunter.	Johnston, George N.	North Bay.
Henderson, Arthur	Baysville.	Jamieson, John	Fort Frances.
Hillis, James M.	Sutton West.	Jones, Wellard	Ignace.
Harris, Wm., Jr.	Day Mills.	Kintree, Stuart	Little Rapids.
Hogg, W. J.	North Bay.	Kerby, John	Belleville.
Hoxie, E. P.	Katrine.	Kennedy, Robert	Marmora.
Hawkins, Walter	Pembroke.	Kirby, Louis Russell ...	Ottawa.
Howard, James	Eganville.	Kennedy, Timothy	Enterprise.
Howard, William	Baysville.	Kirk, Henry	Trenton.
Hogan, Enos W.	Savanne.	Knox, Milton	Ottawa.
		Kinsella, Michael Pierce ...	Trenton.

*Appendix No. 12.—Continued.*LIST OF CULLERS.—*Continued.*

Kitchen, D.	French River.	Lowe, Thomas A.	Renfrew.
Kelly, Jeremiah	Sudbury.	Livingston, Robert M.	Huntsville.
Kelly, Ferdinand	Mattawa.	Londry, William E.	Sault Ste. Marie.
Kennedy, T. J.	Arnprior.	Labelle, James	Waltham, Que.
Kenning, Henry	Fembroke.	Labelle, Elh	Waltham, Que.
Kirby, D. F.	Belleville.	Ladurante, J. D.	Ottawa.
Kirkpatrick, David	Lindsay.	Ludgate, Theodore	Peterborough.
Kean, John F.	Crillia.	Lucas, Frank	Sault Ste. Marie.
Kellett, Fred.	Keewatin.	Lunam, Duncan	Collfield, Que.
Kelly, Michael J.	Baysville.	Lott, George	Trenton.
Kirk, William James ...	Webbwood.	Lawrie, John D.	Parry Sound.
Kerr, E. G.	Thessalon.	Lovering, George Francis..	Coldwater.
King, Napoleon	Mattawa.	Lucas, R. G.	Christina.
Kemp, Orval Wesley	Trenton.	LeBlanc, Edmund C.	Chapleau.
Kirk, Charles Barron ...	Queensborough.	Lavigne, John	Aylmer, Que.
Kingsland, W. P.	Ottawa.	Landell, Charles S.	Huntsville.
Kerr, John B.	Arnprior.	Long, Henry Elisha	Mattawa.
Kennedy, Walter	Arnprior.	Lynch, W. H.	Collingwood.
Kennedy, John	Pembroke.	Laplante, Francis	Byng Inlet.
Knox, Wm. M.	Fesserton.	Lindsay, James	Arnprior.
Kingston, Robert	Wisawasa.	Labelle, Michael	Arnprior.
Kearnan, Robert	Blind River.	Legree, John	Dacre.
Kearney, Michael John ..	Buckingham, Qu.	Legree, James L.	Calabogie.
Kendrick, John	Burk's Falls.	Leigh, John Chas.	Gravenhurst.
Kendrick, John L.	Burk's Falls.	Lloyd, Edward B.	King.
Kennedy, John W.	Ottawa.	Lemyre, Bruno	Gravenhurst.
Kelly, James F.	Trout Creek.	Lavelle, Charles H.	Canoe Lake.
Kauffman, Julius	Blind River.	Lyons, James	Waltham Sta., Q.
Kennedy, Sylvester	Brule Lake.	Ledwood, Charles	Ottawa.
Kernahan, George A.	Barwick.	Levelle, Emrey	Waltham Sta., Q.
Kehoe, Martin	Huntsville.	Little, Theo.	Kenora.
Kennedy, Daniel J.	Spanish.	Lehman, Joseph	Stratton Station.
Kay, Arthur	Norman.	Lafare, Mark	Cache Bay.
Kennedy, Frederick J. ...	Buckingham, Qu.	Leach, George	Vermilion Bay.
Leannoth, Francis	Arnprior.	Lott, Angus M.	Spanish Mills.
Lee, James	Warren.	La Belle, Ambrose	Kenora.
Lloyd, Alfred	Severn Bridge.	La Breen, Douglas	Kenora.
Lawrie, Frank A.	Parry Sound.	Lavelle, Michael J.	Blind River.
Latimer, Jas.	Frank's Bay.	Lyleton, J. E.	Parry Sound.
Lemyre, Middey	Campbellford.	Lalor, William J.	Aspdin.
Lutz, Jacob	Parry Sound.	Lalonde, Joseph Maxine..	Lirk.
Lucy, John E.	Ottawa.	Laderoute, Michael	Arnprior.
Law, Wm. J.	Markstay.	Leroy, Levi H.	Port Arthur.
Lummis, Daniel	Glanmire.	Lusigneau, Arthur	Pembroke.
Lowe, W. C.	Port Arthur.	Link, John	Link P.O.
Londry, S. C.	Sault Ste. Marie.	Love, B.	Port Arthur.
Lochnan, James	Ottawa.	Landry, Fred. S.	Sturgeon Falls.
Link, Henry W.	Ottawa.	Malloy, Mark	Baysville.
Ladarotte, John	Arnprior.	Martin, Hugh	Sault Ste. Marie.
Lochran, John	Aylmer, Que.	Miller, R. O.	Gravenhurst.
Lozo, John	Trenton.	Morrison, James	Toronto.
Loughrin, Lawrence	Pembroke.	Murray, Frederick	Huntsville.
Linton, J. H.	Parry Sound.	Menzies, Archibald	Burk's Falls.
Ludgate, James	Peterborough.	Manning, James	Trenton.
Lee, Robert	Huntsville.	Martin, Philip	Stoco.
Langford, Mark	Baysville.	Malone, Wm. Patrick ...	Ottawa.
Letherby, Edwin	Midland.	Marsh, Esli Terrill	Trenton.
Leahy, Francis M.	Chapeau, Que.	Miller, John W.	Huntsville.
Langford, Henry	Baysville.	Muchinbacker, Asa	Rousseau Falls.
Lessard, Philip	Kenora.	Morris, Geo. F.	French Bay.
Lovering, William James.	Coldwater.	Murray, George, Jr.	Waubashene.
Lane, Maurice	Bobcaygeon.	Maughan, Joseph	Fort William.
Lenton, George	Peterborough.	Margach, Wm. J.	Port Arthur.

Appendix No. 12.—Continued.

LIST OF CULLERS.—Continued.

Murray, George, Sr.	Waubauskene.	Morrison, Donald	Reay.
Manice, Wm.	Peterborough.	Moore, Wm.	Bobcaygeon.
Murray, Wm.	Kenora.	Mutchenbacker, Herman ..	Rosseau Falls.
Morgan, Richard J.	Kenora.	Moore, Norman	Arnprior.
Magee, Thomas Arthur ..	Kenora.	Morley, John R.	Kenora.
Murdoch, James	Cook's Mills.	Mackay, J. A.	Big Forks.
Mulvahill, Wm.	Arnprior.	Miller, Robt.	Montreal.
Murphy, Arthur	Ottawa.	Mackey, Levi Ralph	Keewatin.
Mayhew, Jacob	Northcote.	Morley, Frank W.	Kenora.
Molyneaux, George	Parry Sound.	Madden, F. M.	Haileybury.
Milway, Joseph	Fort William.	Miller, Walter E.	Owen Sound.
Mackie, Nathan	Port Arthur.	Murray, Robt.	Berriedale.
Milne, Archie	Arnprior.	Mills, W. J.	Cache Bay.
Murray, James	Peterborough.	Martin, Oscar	Buckingham, Que
Moore, James A. E.	Lakefield.	Margach, Jas. A.	Kenora.
Merkley, William A.	Ottawa.	Murray, Peter	Emo.
Murphy, Hugh R.	Ottawa East.	Maddermid, Harry	Sellwood Jct.
Murphy, W. J.	Arnprior.	Muckle, John	Keewatin.
Murray, William	Markstay.	Morel, H., Jr.	Mattawa.
Martin, Edgerton	Markstay.	Molyneaux, Harold	Parry Sound.
Mathieson, Archie	Fort Frances.	Marchildon, J. P.	Sturgeon Falls.
Moore, Henry R.	Lakefield.	Main, G. C.	Fort Frances.
Mickle, Chas. S.	Gravenhurst.	Marr, H. J.	Superior Jct.
Mullen, James	Webbwood.	Mathewson, O. R.	Blind River.
Morley, A. W.	Winnipeg.	Morel, Adage	Mattawa.
Macdonald, James M.	North Bay.	McCaw, Joseph E.	Tweed.
Money, Harry	Haileybury.	McLaren, Peter	Kenora.
Mather, Allen	Keewatin.	McGregor, Colin F.	Kenora.
Menzies, Alexander	Sault Ste. Marie.	McKenzie, Robt.	Kenora.
Munro, Peter P.	Commanda.	McFadyen, A. J.	Bracebridge.
Mason, Benjamin	Westmeath.	McCaulay, Thos. J.	Goulais Bay.
Monaghan, John B.	Arnprior.	McDonald, John C.	Spanish Mills.
Monaghan, M. J.	Arnprior.	McKenzie, Alex. E.	Ansonia.
Mulvihill, John	Arnprior.	McIntyre, John	Arnprior.
Moran, Andrew	Rockingham, Qu.	McDermott, Thos.	Orillia.
Mulvihill, Michael	Arnprior.	McDermott, Jas. E.	North Bay.
Mann, John	Manitowaning.	McCrindle, Jas.	Sudbury.
Marrigan, Richard	Deseronto.	McGhie, Chas. S.	Whitestone.
Monaghan, John Dorland ..	Deseronto.	McGenigal, John H.	Whitby.
Matheson, Wm.	Chelmsford.	McCart, Patrick	Arnprior.
Munro, Alex. G.	Braeside.	McGrath, Thos. B.	Peterborough.
Murphy, Oliver A.	Marksville.	McCormick, James J.	Trenton.
Mellor, Charles	Port Arthur.	McCarthy, Wm.	Fenelon Falls.
Millions, Harry	Gillies Depot.	McAvoy, Owen	Campbellford.
MacDonell, R. D.	Biscotasing.	McConnell, Lewis	Fesserton.
Milne, Fred.	Trout Mills.	McMullen, George	Spragge.
Milne, William H., Jr.	North Bay.	McNab, Angus	Burnstown.
Murphy, Dennis	Thessalon.	McColgan, C. H.	Quyon, Que.
Mackie, Thomas	North Lake.	McCallum, Webster	Arnprior.
Miller, P. H.	Blind River.	McFarlane, Robert L.	Warren.
Munro, Philip	Braeside.	McCagherty, Robert E.	Westmeath.
Mangan, Patrick	Arnprior.	McNab, Archie	Calabogie.
Marcell, Peter	Ottawa.	McDonald, Malcolm	Spragge.
Main, Samuel	Spanish Station.	McIvor, J. A.	Fort Frances.
Morley, Charles	Huntsville.	McCulloch, M.	Kenora.
Moore, David Henry	Peterborough.	McDonagh, Rod.	Callender.
Murphy, John	Arnprior.	McManus, James	Arnprior.
Mathieson, Daniel	Chelmsford.	McKinley, J. H.	Curran.
Milne, Wm.	Ethel.	McPherson, Jas. S.	Rama.
Mangan, Charles	Burk's Falls.	McKinley, Edward C.	Toronto.
Mooney, Lincoln	Orillia.	McClelland, John	Parry Sound.
Mangan, John	Arnprior.	McFarlane, J. W.	Cache Bay.
Mooney, Thomas	Kingston.	McDonald, Roderick	Pembroke.
Mason, Robt. T.	Rochesterville.	McCormack, Wm.	Pembroke.
Moore, Wm. John	Gravenhurst.	McCreary, William	Arnprior.
		McCuaig, James C.	Bryson.

Appendix No. 12.—Continued.

LIST OF CULLERS.—Continued.

McColman, Peter	North Bay.	McLean, John	Blind River.
McLeod, James D.	Gravenhurst.	McLeod, Norman	Garden River.
McCrimmon, N. K.	Blind River.	McLean, James	Blind River.
McCreary, James, Jr.	Arnprior.	McNally, J. A.	Desbarats.
McPhee, Hugh	Byng Inlet.	McNab, Alexander	Arnprior.
McCudden, James	Arnprior.	McFarlane, Alexander ...	Renfrew.
McLachlin, J. A.	Arnprior.	McFarlane, J. D.	Stewartsville.
Macpherson, John	Ottawa.	McFarlane, Duncan	Renfrew.
McEachren, John A.	Gravenhurst W.	McKendry, Wm. B.	Arnprior.
McLeod, Dugald	Gravenhurst.	McPhee, Hugh	Renfrew.
McClelland, R. H.	Parry Sound.	McPhee, John	Arnprior.
McEvoy, Frank	Campbellford.	McLachlin, Peter	Arnprior.
McDermott, Peter	Orillia.	McLachlin, Alexander ...	Arnprior.
McIlroy, John	Madoc.	Mackey, Edward	Arnprior.
McNab, Robert J.	Parry Sound.	McEwan, Henry	Trenton.
McFadden, James	Ottawa.	McDonald, Alfred	Peterborough.
McIntosh, James G.	Carleton Place.	McGeary, John J.	Sundridge.
McInnis, Hector D.	Bracebridge.	McDonald, Archibald W. .	Gilmour.
McKinnon, Malcolm	Bracebridge.	McGaw, John Gillen	Queensborough.
McLean, Daniel	Bracebridge.	McCauley, Barney	Trenton.
McKinnon, Archie J.	Bracebridge.	McDougall, James T.	Kock's Mills.
McKay, D. C.	Baysville.	McInenly, Thomas	Quebec, Que.
McDonald, James	Parry Sound.	McBride, Archibald	Arnprior.
McPherson, Allan	Longford.	McFarlane, Robert L. ...	Arnprior.
McDonald, James P.	French River.	McGowan, Wm.	Parry Sound.
McFarlane, Jos. C.	Port Severn.	McLachlin, Norman	Arnprior.
McNabb, Alexander	Thessalon.	McDonald, Laughlin	Pendleton.
McGillivray, Archibald ...	Port Arthur.	Melvor, William J.	Collin's Inlet.
McGrane, Edward	Lindsay.	McKee, John P.	Sturgeon Falls.
McLeod, Donald, Jr.	Keewatin.	McGowan, Thomas	Parry Sound.
McDonald, Hector R.	Thessalon.	McDermot, Patrick	South River.
McDougall, Duncan	Bracebridge.	McKay, Angus	South River.
McNabb, Alexander D. ...	Warren.	McDonald, A. J.	Longford.
McCormack, John C.	Sudbury.	McInnis, Angus D.	Gravenhurst.
McNamara, John	Byng Inlet.	McKendry, Alexander ...	Waubausheene.
McGillivray, Duncan D. ...	Algoma Mills.	McGuire, Timothy	North Bay.
McIntyre, Daniel A.	Klock's Mills.	McGrath, John	Peterborough.
McNamara, Lewis	Klock's Mills.	McWilliams, Jno. Bannan.	Peterborough.
McDonald, Sydney C.	Mattawa.	McCagherty, Patrick	Westmeath.
McGurn, John J.	Buckingham, Qu.	McKendry, Daniel	Arnprior.
McKeown, Jno. Joseph	Port Arthur.	MacDonald, D. F.	Parry Sound.
McNeel, David	Sault Ste. Marie.	McManus, Thomas J.	Renfrew.
McEwan, Andrew	Thessalon.	Macfarlane, David R. ...	Ottawa.
McCool, Christopher L. ...	Cartier.	McColgan, Edward	Quyon, Que.
McCollom, Donald	Arnprior.	McKay, John	Emo.
McDowell, Wm.	Cache Bay.	McKinnon, William	Kenora.
McConnachie, Roy Stewart	Huntsville.	McKittrick, Frank R. F. .	Kenora.
McDonnell, J. K.	Kenora.	McMichael, Charles	North Seguin.
McDonald, Alex. J.	Vermilion Bay.	Mellroy, Thomas David ...	Madoc.
McKay, D. A.	Rainy River.	McDonald, Wm. Henry ...	Trenton.
McMillan, James	Kenora.	McGaw, Wm. Thomas ...	Callender.
McPhee, Ronald	Bracebridge.	McMillan, L.	Callender.
McKay, George Donner ...	Dorset.	McDermott, John L.	Orillia.
McWilliams, Maxwell		McDonald, Chas. M.	Pembroke.
Theodore	Peterborough.	McPhee, Benjamin	Pembroke.
McLeod, John	Keewatin.	McGee, John Edward ...	Parry Sound.
McPherson, George	Keewatin.	Macfarlane, Mack	Arnprior.
McDougall, John D.	Kenora.	MacCallum, Alexander ...	Braeside.
McGregor, Duncan	Burnstown.	McRae, Farquhar	Kenora.
McLean, Peter W.	Sand Point.	MacCallum, Albert	Arnprior.
McNichol, John	Sudbury.	McGonigal, John	Arnprior.
McInnis, D. El.	Cache Bay.	McConachie, John	Huntsville.
McLaughlin, Samuel	Waubausheene.	McKay, D. G.	Kenora.
McCollam, John	North Bay.	McDonald, James	Peterborough.
McManus, John C.	Arnprior.	McCulloch, John L.	Lonsdale.

Appendix No. 12.—Continued.

LIST OF CULLERS.—Continued.

McConnell, James	Mine Centre.	Oliver, J. A.	Fort William.
McIntyre, William John	Port Arthur.	Owen, W. J.	Wabigoon.
McDonald, Allen	Big Forks.	O'Connor, John	Hintonburg.
McLay, Albert	Devlin.	Oliver, Darcy	Wahnapiatae.
McQuarrie, Daniel	Fort Frances.	O'Connor, Wm.	Noxboning.
McNaughton, Daniel	Bracebridge.	O'Neil, James W.	North Bay.
McCagherty, William E.	Westmeath.	O'Donnell, Wm.	Penetanguishene.
McDonald, John D.	Mattawa.	Owens, Richard	Basin Depot.
McCagherty, Joseph T.	Westmeath.	O'Reilly, Patrick	Cartier.
McAdam, Arch. H.	Quyon, Que.	O'Neill, Mark	Renfrew.
McMurphy, Dugald, Jr.	Kenora.	Orrill, John	Trenton.
McCall, Alfred	Kenora.	O'Neill, Patrick	Bancroft.
McRitchie, William	Kenora.	Orde, Francis W.	Kenora.
McRitchie, Malcolm	Kenora.	O'Driscoll, Joseph	Sault Ste. Marie.
McDonald, John Harold	Rydal Bank.	O'Gorman, Peter	Blind River.
McAuley, William Davis	Sault Ste. Marie.	Ogden, L. M.	Fort Frances.
McCallum, Thomas	Fort William.	Pigott, John	Fitzroy Harbour.
McWhinney, Fred.	Kenora.	Paul, Charles A.	Sault Ste. Marie.
McNairney, Hugh H.	Sudbury.	Patinson, Thos.	Bracebridge.
McKelvie, William	Otter Lake Sta.	Price, A. E.	Arnprior.
McGovern, Frank	Sault Ste. Marie.	Presley, J. F.	Ashton.
McCallum, Gordon	Fort Frances.	Power, James	Bobcaygeon.
McCallum, Henry	Fort Frances.	Patzel, Adolph	Arnprior.
McLaughlin, Russell	Spanish Mills.	Plaunt, William B.	Eganville.
McAdam, Miner S.	Quio, Que.	Plaunt, Joseph	Eganville.
McDougall, David A.	Nesterville.	Porter, Charles C.	Longford.
McLeod, William A.	Manitowaning.	Preston, R. E.	Kenora.
McKee, D. A.	Wylie.	Petrie, Geo. A.	Fergus.
McKay, Norman	Fort Frances.	Pomeroy, Peter	Trenton.
McIntosh, Wm.	Biscotasing.	Perry, Pringle K.	Byng Inlet, N'th.
McMahon, Edwin	Nesto, P.O.	Purcell, W. G.	Ottawa.
McGowan, Thos.	Parry Sound.	Purvis, John	Parry Sound.
McDonald, Norman	Keewatin.	Porter, James	Uphill.
McLeod, John C.	Port Arthur.	Pearson, John James	Lindsay.
McIntosh, Herbert	Biscotasing.	Penney, Chas. G.	Cache Bay.
McDonald, Thos.	Kenora.	Pennock, James P.	Hardwood Lake.
McCool, Daniel	Sudbury.	Purdy, John A.	Uxbridge.
McDonald, Frank	Mattawa.	Playfair, R. J.	Blind River.
McLeod, E. H.	Nepigon.	Paterson, John	Wahnapiatae.
Nescott, George	Kenora.	Paterson, Alexander	Orillia.
Newton, Frank	Gravenhurst.	Parke, James	Gravenhurst.
Newburn, Wm.	Parry Sound.	Parquette, Oliver	Webbwood.
Niblett, James	Arnprior.	Palmateer, Sherman	Gravenhurst.
Nisbett, Robert	Osceola.	Paget, George	Huntsville.
Nevison, Herbert	Kenora.	Pounder, Joseph	Westmeath.
Nicholson, John	Owen Sound.	Pell, Richard D.	Arnprior.
Newall, John H.	Parry Harbour.	Perry, Frederick	Port Arthur.
Nolan, John	Gravenhurst.	Paget, Charles Edward	Novar.
Newton, Charles W.	Victoria Harbour.	Porter, Thos. Robt. Mark	Dorset.
Nent, Charles	Vermilion Bay.	Pountney, E. J.	Arnprior.
Needham, John G.	Pakenham.	Pyburn, David J.	Dorset.
Netterfield, David	John's Island.	Purdy, Geo.	Hintonburg.
Nault, James	Fort Frances.	Playfair, Andrew Wm.	Sault Ste. Marie.
Norgate, Chas.	Dryden.	Pipe, Taylor	Haileybury.
Nash, John	Kenora.	Pipher, George E.	Mowat.
Nesbitt, Thos.	Kenora.	Pendee, David	Farry Sound.
Oullette, Joseph P.	Cutler.	Piper, A. J.	Blind River.
O'Neil, Thomas	Bancroft.	Paget, Alfred H.	Ahmie Harbour.
O'Neill, Daniel H. H.	Arnprior.	Powers, John J.	Trout Mills.
O'Leary, Patrick J.	Orillia.	Pigott, William D.	Fitzroy Harbour.
Oliver, Charles R.	Fesserton.	Potts, Cyril	North Lake.
Overend, George J.	Longford Mills.	Pilkey, William	La Vallee.
O'Brien, Andrew	Ottawa.	Pointer, Roy R.	Pembroke.
O'Brien, Frank G.	Arnprior.	Piper, Roy	Blind River.

*Appendix No. 12.—Continued.*LIST OF CULLERS.—*Continued.*

Pehill, Walter	Dryden.	Robinson, Thos. Geo.	Bracebridge.
Palmer, Fred.	Blind River.	Rooksby, Wm.	Campbellford.
Quinn, William	Peterborough.	Ramesbottom, Robt.	Byng Inlet.
Quigley, Hugh	Penetang.	Roy, Lewis	Arnprior.
Quirk, Thomas J.	Petawawa.	Riddell, Horace A.	Galetta.
Quance, Louis F.	Berriedale.	Rowan, A. L.	Sault Ste. Marie.
Robertson, D.	Kenora.	Ritchie, James A.	Spragge.
Richardson, Fred'k George	Trenton.	Ross, George Joseph	Schreiber.
Richards, Richard	Tamworth.	Rowe, Frank E.	Hymers.
Riddell, Geo. Alexander ..	Rochesterville.	Regmibal, J. Hector	Larchwood.
Robertson, Lewis McLean ..	Dunchurch.	Reid, William T.	Fort Frances.
Robinson, Wm. F.	Bobcaygeon.	Ross, Sidney	Fort William.
Reamsbottom, Wm.	Mattawa.	Robinson, Thos.	Kenora.
Richey, Evan	Brentwood.	Robertson, J. D.	Kenora.
Randall, Lewis G.	French River.	Richardson, C. R.	Fort Frances.
Richardson, Chas. Marvyn ..	Trenton.	Richey, A. W.	Sudbury.
Rochester, Daniel Baillie ..	Ottawa.	Robinson, W. J.	Dryden.
Riddell, James	Ottawa.	Smith, M. D.	Fort William.
Rice, Asa S.	Hull, Que.	Scanlan, William	Enterprise.
Roberts, T. A.	Huntsville.	Sutherland, D. H.	Gravenhurst.
Ross, Andrew	Longford Mills.	Spanner, John	Huntsville.
Rose, Donald M.	Kenora.	Shier, James D.	Bracebridge.
Rawson, Charles Edward ..	Coldwater.	Spooner, W. R.	Katrine.
Ross, George	Waubauskene.	Simpson, Alfred E.	Wakefield.
Roberts, Percy T.	Keewatin.	Souliere, John B.	Ottawa.
Ritchie, Wm. D.	Little Current.	Shields, James A.	Carleton Place.
Ramsay, Robert	Arnprior.	Spargo, George	Ottawa.
Ritchie, J. F.	Arnprior.	Smyth, W. H.	Baysville.
Ritter, Samuel G.	Ahmik Harbour.	Salmon, R. H.	Byng Inlet North.
Rothera, Charles F.	Sturgeon Falls.	Salmon, Alexander C. ...	Baysville.
Ryan, Alfred	Byng Inlet.	Stremer, A.	Ottawa.
Rogers, Fred.	Sault Ste. Marie.	Shields, Frank A.	Farry Sound.
Reid, George William	Fort Frances.	Stapleton, John J.	Ogidakie.
Robertson, John A.	Kenora.	Sloan, William H.	Fort Frances.
Robinson, Wm.	Bobcaygeon.	Smyth, Job E.	Cache Bay.
Reid, Joseph B.	Lindsay.	Sage, Nelson	Muskoka Mills.
Ross, Walter M.	Ottawa.	Seymour, Edward	Whitefish.
Ruttle, H. A.	Carleton Place.	Shaw, Thomas B.	Waubauskene.
Richards, Benedict	Ottawa.	Swanston, James	Peterborough.
Regan, John	Orillia.	Simpson, William	Hall's Bridge.
Russel, Wm.	Pembroke.	Sadler, Thomas	Lindsay.
Ramsay, Charles	Sudbury.	Smith, Patrick Albert ..	Norman.
Russell, Corsan L.	Pembroke.	Snaith, William J.	Mattawa.
Richards, Henry	Dacre.	Sinn, William F.	Arnprior.
Ryan, Wm.	Killaloe.	Sheppard Wm. Joseph ..	Wautauskene.
Reid, John P.	Spanish Mills.	Spears, Milton B.	Barry's Bay.
Ridley, Robert	New Liskeard.	Stevenson, Arthur	Peterborough.
Riley, Charles W.	Hutton House.	Stein, Paul	Sault Ste. Marie.
Raymond, Morris T.	Spanish Mills.	Shaw, Alfred	Thessalon.
Rooney, Wm. H.	Campbellford.	Sequin, Napoleon	Spanish Station.
Revell, J. O.	Dryden.	Scrim, Robert	Arnprior.
Rankin, Anthony	Cache Bay.	Sharp, James A.	Sudbury.
Ross, Angus	Crrville.	Shaney, Harry S.	Cook's Mills.
Robinson, Albert E.	Washago.	Smith, Wm.	Ottawa.
Robinson, Edward	Washago.	Stewart, Daniel	Braeside.
Robinson, Thomas G.	Washago.	Sheehan, Michael H.	Waubauskene.
Raycroft, William T.	Sarnia.	Smith, Sydney H.	Bracebridge.
Roberts, Ivor M.	Garden River.	Stewart, James A.	Pembroke.
Revell, Lionel Oliver	W. Gravenhurst.	Sproule, Newton H.	Schomberg.
Regan, Judd Patrick	Orillia.	Simmons, Alex.	Port Arthur.
Robins, Etna Rosedale ..	Orillia.	Scott, Thomas	Parry Sound.
Regan, John, Jr.	Orillia.	Smith, Lawrence	W. Sarnaw. Mich
Ryan, James	Savanne.	Shea, Stewart	Campbellford.
Rusk, Oscar W.	Cache Bay.	Sullivan, John	Sault Ste. Marie.

*Appendix No. 12.—Continued.*LIST OF CULLERS.—*Continued.*

Sinclair, Finlay	Sudbury.	Spense, Dalton	Farry Sound.
Shiels, Henry F.	Cartier.	Sparling, S. W.	Richan.
Smith, Gideon Ousley ...	Burk's Falls.	Smith, L. G.	Worthington.
Smith, John Wallis ...	Thedford.	Skead, Eric S.	Spanish Mills.
Smith, Henry G.	Arnprior.	Sullivan, Michael	Barry's Bay.
Story, John A.	Ottawa.	Swale, William	Gillies Depot.
Sweezy, Benjamin	Massey.	Schreiber, C. C.	Sudbury.
Sheppard, Charles H. ...	Coldwater.	Shirfield, Wm. Chas. ...	Dryden.
Seabrook, Alex.	Fabre P.O.	Taylor, Fred. L.	Parry Sound.
Spreadborough, Newlands.	Little Current.	Thomas, Griff J.	Thessalon.
Sheffield, George	Chapleau.	Thomson, R. D.	Biscotasing.
Sanders, William J.	Sudbury.	Tait, Thomas B.	Burk's Falls.
Sinclair, Armon D.	Arnprior.	Taylor, C. M.	Gravenhurst.
Smith, Sidney E.	Ottawa.	Thornton, W. D.	Longford Mills.
Sleeman, Wm.	Rapid River.	Trussler, Gilbert	Trout Creek.
Sheehan, Peter F.	Loring (canc'd).	Thompson, Geo. S.	Lindsay.
Sleeman, Geo.	Rapid River.	Thompson, Fred. A. H. ...	Nosbonsing.
Sims, Wm. K.	Sault Ste. Marie.	Thompson, Francis Hy...	Nosbonsing.
Skahill, Wm.	Blind River.	Train, A. C.	Rowan Mills.
Shaw, George	Thessalon.	Turgeon, Geo.	Cook's Mills.
Sarsfield, George Francis.	Sault Ste. Marie.	Thayer, Wm.	Sault Ste. Marie.
Standish, Wm. H.	Batchawaning	Thompson, Alexander W.	Arnprior.
Simpson, Wm. A.	Lakefield. [Bay.	Taylor, Thos. G.	Gravenhurst.
Scollard, Wm.	Young's Point.	Trowse, A.	Arnprior.
Shuttleworth, Alma	Trout Creek.	Tucker, Louis A.	Fort Frances.
Shanacy, Wm. J.	Spragge.	Thompson, Daniel	P't'ge du F'rt, Q.
Seely, George	Arnprior.	Thompson, Richard	Kenora.
Stewart, Alex. W.	Lanark.	Thompson, Joseph H. ...	Bracebridge.
Soreny, Wm.	Braeside.	Taylor, Edward A.	Westmeath.
Schneider, Frederick ...	Cache Bay.	Tait, Ralph	Arnprior.
Smith, James D.	Kenora.	Train, William	Burk's Falls.
Sullivan, James	Aylmer.	Turner, Garvin F.	North Bay.
Scully, Cornelius	Whitney.	Tilson, Joseph	Burk's Falls.
Savoy, Eutrope	North Bay.	Tuffy, John	Cartier.
Smith, Walter J.	Campbellford.	Thorpe, Thomas	Pembroke.
Seymour, John J.	Whitefish.	Taylor, Charles E.	Gravenhurst.
Smith, Alex. R. C.	Burk's Falls.	Tench, Arthur	Hekkla.
Stewart, Richard M.	Chelsea, Que.	Tulloch, William A. ...	Sault Ste. Marie.
Souliere, John H.	Cance Lake.	Taylor, Alex. M.	Burnstown.
Smith, Abraim G.	Quyon, Que.	Toner, J. A.	P't'ge du F'rt, Q.
Swallow, C. H.	Day Mills.	Thrasher, Henry G.	Pembroke.
Strave, A. M.	Mine Centre.	Tooke, Frank	Bala.
Stewart, John	Fort Frances.	Thorburn, Donald James.	Thessalon.
Sullivan, George L.	Rainy River.	Tetreault, Philias	Tomiko.
Short, James	Kenora.	Tibbets, L. R.	Fort Frances.
Shaw, Fred. Jason	Thessalon.	Tichborne, A. C.	Fort Frances.
Short, Chas. J.	Kenora.	Thomson, Donald	Arnprior.
Smith, David H.	Sudbury.	Udy, Dean	French River.
St. Hillaire, George	Arnprior.	Urquhart, Elias	Gravenhurst.
Souliere, Joseph C.	Cutler.	Urquhart, Andrew	Barrie.
Scott, J. C.	Fort Frances.	Vigrass, Percy J.	Dufferin Bridge.
Stewart, Frank E.	Crozier.	Vincent, Joseph	Warren.
Sanders, Edward	Barwick.	Vollin, Samuel	Nosbonsing.
Spence, William	Arnprior.	Vannier, Nelson Joseph.	Bobcaygeon.
Scott, Allan A.	Norman.	Vincent, James	Fesserton.
Souliere, Max	Spanish Mills.	Vincent, Henry T.	Port Sidney.
Stewart, David	Cache Bay.	Vanderburg, Norman ...	Wisawasa.
Shaw, Donald	Keewatin.	Valois, Armand	Mattawa.
Smyth, C. W.	Fort Frances.	Villiers, Claude	Parry Sound.
Stewart, Jas. Max	Winnipeg, Man.	Vanier, John	Sault Ste. Marie.
Stewart, Russell C.	Winnipeg, Man.	White, Thomas S.	Bracebridge.
Sisson, Heber P.	Hymers.	White, A. Thomson	Pembroke.
Schultz, Albert	Pembroke.	Watt, R. A.	Spanish.
Spavin, John	Westmeath.	Wilkins, Hughes	Blind River.

*Appendix No. 12.—Concluded.*LIST OF CULLERS.—*Concluded.*

Wallace, T. William	.... Blind River.	Watterworth, J. A.	..... Sault Ste. Marie.
White, Joseph W.	..... Bracebridge.	White, Wm. James	..... Muskoka Falls.
Watson, William	..... Huntsville.	Warrell, George	..... Powassan.
Webb, George W.	..... Parry Sound.	Wells, George W.	..... Little Current.
Wilcox, Thomas	..... Parry Sound.	Wilson, Frederick Gould	..... Kenora.
Wheeler, J. A. McL.	.... Tamworth.	Wallace, John Thomas	.. Thessalon.
Widdifield, C. H.	..... Pine Orchard.	Wilkins, George N.	..... Baysville.
Whitmore, Edgar	..... Rosseau Falls.	Wylie, Byron M.	..... Webbwood.
Wright, L. B.	..... Sault Ste. Marie.	White, Allan	..... Pembroke.
Ward, Joseph W.	..... Ottawa.	Warner, Franklin H.	.... Fort Frances.
Wilkinson, W.	..... French River.	Watts, George	..... Fort Frances.
Waldie, John E.	..... Victoria Harbour.	Wood, Thomas	..... Parry Sound.
Wigg, Thomas G.	..... Thessalon.	White, William	..... Peterborough.
Wall, Patrick B.	..... Cheboygan, Mich.	Woods, A. L.	..... Kenora.
Wells, John R.	..... Little Current.	White, John B.	..... Kippewa, Que.
Whiteside, John	..... Huntsville.	Whelan, Peter M.	..... Renfrew.
Watt, William	..... Peterborough.	Wilson, David	..... Kearney.
Wilson, George	..... Lindsay.	Weston, Cecil	..... Dorset.
White, Thomas	..... Parry Sound.	Wilkins, George E.	..... Dorset.
Wood, William D.	..... Sault Ste. Marie.	Woodcock, Edward	..... Brownhill.
Watts, John J.	..... Fort Frances.	Wilson, Fred.	..... Callender.
Webster, George F.	..... Fort Frances.	Wilson, Alexander R.	... Thessalon.
Wright, Percy	..... Fort Frances.	Webster, Henry R.	..... North Lake.
Watts, William B.	..... Fort Frances.	Wallace, Fred. R.	..... Port Arthur.
Watson, William	..... North Bay.	Wallace, Clayton	..... Blind River.
Wagner, Fred.	..... Kenora.	Wilson, Russell	..... Pembroke.
Wainwright, Edward C.	.. Huntsville.	Wheeler, George	..... Barwick.
Wilson, Wm. James	.... Deseronto.	Wall, G. L.	..... La Vallee.
Weston, Frank R.	..... Midland.	Williams, Edward R.	.... Port Arthur.
White, James B.	..... Manitowaning.	Whalen, Jos.	..... Pembroke.
Warren, Robert M.	..... Cache Bay.	Wood, W. G. A.	..... Porcupine.
Wilson, George A.	..... Balsam Hill.	Younge, Harvey D.	..... Fort Frances.
Welch, Harold	..... Milberta.	Young, R. H.	..... Fort Frances.
Wilson, James A., Jr.	... Webbwood.	Yuill, John Albert	..... Braeside.
Woods, John R.	..... Antrim.	Young, William	..... Severn Bridge.
Wardell, Ernest C. S.	... Victoria Harbour.	Young, A. J.	..... Cache Bay.
Woods, Joseph F.	..... Roach's Point.	Young, Samuel	..... Coldwater.
Whaley, Thomas	..... Huntsville.	Young, Patrick P.	..... Young's Point.
Webster, Wm. Alfred	.... Bracebridge.	Young, Francis G.	..... Young's Point.
Wornsdorf, Fred. Gutlep	.. Pembroke.	Yuill, Thomas	..... Arnprior.
Warrell, Wm.	..... Trout Creek.	Yuill, A. D.	..... Braeside.
Wims, Peter	..... Blessington.	Young, C. T.	..... Harvey.
Wickware, Philip Almont.	.. Cloyne.	Yuill, John Alex.	..... Arnprior.
Wilson, Edward	..... Deseronto.	Yuill, Archibald	..... Bracebridge.
Whelan, P. J.	..... McDougall.	Yuill, William	..... Braeside.
Whyte, John, Thos. Goth.	.. Ottawa.	Young, Walter D.	..... Whitefish.

Appendix No. 13.

RECORDS BRANCH, 1916-17.

Communications Received:

From Crown Land Agents	7,642
“ Mining Recorders	3,602
“ Crown Timber Agents	3,566
“ Homestead Inspectors	1,391
“ Fire Rangers	2,666
“ Superintendent, Algonquin Park	403
“ Superintendent, Quetico Park	127
Orders-in-Council	191
Telegrams	224
Nickel Commission (letters)	1,025
Northern Development Branch	5,699
Colonization Branch	7,244
Loan Commissioner	6,532
Mining Commissioner	2,016
Forestry Branch (direct)	2,151
Mine Assessor	2,057
Mine Inspector	801
Provincial Geologist	625
All other sources	31,637

Total pieces, incoming (Minister's office excluded) 79,599

Communications Sent Out:

To Crown Agents, Inspectors, Rangers and Park Superintendents	20,063
To general public	20,890
Circular letters (timber sales)	1,620
Maps and blue prints	2,803
Mining Reports to foreign countries	295
Mining Acts	1,415
Nickel Commission (letters)	1,016
Nickel Commission (reports—home and foreign)	2,300
Northern Development Branch (letters)	5,442
Northern Development Branch (seed grain)	967
Colonization Branch (letters)	7,680
Colonization Branch (books, maps and calendars)	68,987
Loan Commissioner	6,740
Mining Commissioner	3,614
Forestry Branch (including circular letters)	7,503
Mine Assessor	2,050
Mine Inspector (letters)	871
Mine Inspector (reports, etc.)	104
Provincial Geologist (including circular letters)	991

Total pieces, outgoing (Minister's office excluded) 155,351

Postage:

Postage for the year, Records Branch	\$3,288 58
“ “ “ Colonization Branch	957 92
“ “ “ Loan Commissioner	290 54

Files:

New files issued, general	8,650
“ “ “ accounts chargeable	493
“ “ “ accounts free	218

S. K. BURDIN,
Chief Clerk, Records Branch.

ALBERT GRIGG,
Deputy Minister

Appendix No. 14.

Statement showing the number of Locatees and of acres located; of purchasers and of acres sold; of lots resumed for non-performance of the settlement duties and of patents issued in Free Grant Townships during the year ending 31st October, 1917.

Township.	District or County.	Agent.	No. of persons located.	No. of acres located.	No. of purchasers.	No. of acres sold.	No. of persons cancelled.	No. of acres resumed.	No. of patents issued.	No. of acres patented.
Baxter	Muskoka.	J. B. Brown, Brace-bridge	1	100	7	206	1	100	14	313
Brunel	"	"	1	100			1	100		
Cardwell	"	"	4	350			4	350		
Chaffey	"	"	1	195			1	195		
Draper	"	"	4	396	1	43	3	289	4	256
Franklin	"	"								
Freeman	"	"								
Macaulay	"	"								
Medora	"	"								
Monck	"	"								
Morrison	"	"	1	100					3	283
Muskoka	"	"							1	101
McLean	"	"	1	100			1	160	1	100
Oakley	"	"	1	100			1	100	2	142
Ridout	"	"							1	57
Ryde	"	"								
Sherborne	"	"								
Sinclair	"	"	1	38					2	166½
Stephenson	"	"	1	100			5	485		
Stisted	"	"	2	204			2	204	1	104
Watt	"	"	1	11			1	11	1	32
Wood	"	"	1	198	8	38	2	208	9	89
Blair	Parry Sound..	Miss I. M. Campbell,			4	15			5	18
Burpee	"	" Parry Sound	1	200					1	98
Carling	"	"	6	660			3	261	5	213
Christie	"	"	1	98			1	202	4	674
Conger	"	"	3	507			3	507	1	44
Cowper	"	"							2	10
Foley	"	"	2	175						
Ferguson	"	"	2	200			3	300		
Hagerman	"	"							1	197
Harrison	"	"							2	2
Henvey	"	"								
Humphrey	"	"	2	283	1	43	1	143	2	390
McConkey	"	"	1	135	1	1	3	326	2	245
McDougall	"	"	3	302	2	2	2	202	1	100
McKellar	"	"	1	99			1	99		
McKenzie	"	"					1	200	1	100
Monteith	"	"	6	661	3	244	4	401	1	229
Shawanaga	"	"							1	17
Wilson	"	"	1	200			1	200		
Chapman	Parry Sound .	Dr. J. S. Freeborn,	5	598			4	399	1	200
Croft	"	" Magnetawan	3	343			2	243	3	489
Ferrie	"	"								
Gurd	"	"	1	100			1	100	2	328
Lount	"	"	1	100	1	2			4	403
Machar	"	"	4	613			3	215	2	276
Mills	"	"	1	100			1	100	1	100
Pringle	"	"	2	200	2	101	2	200	4	601

Appendix No. 14.—Continued.

Township.	District or County.	Agent.	No. of persons located.	No. of acres located.	No. of purchasers.	No. of acres sold.	No. of persons cancelled.	No. of acres resumed.	No. of patents issued.	No. of acres patented.
Ryerson.....	Parry Sound..	Dr. J. S. Freeborn, Magnetawan							1	100
Spence	"	"	1	200			1	200		
Strong	"	"								
Armour	Parry Sound..	W. Jenkin, Emsdale..							2	104½
Bethune	"	"							2	394
Joly	"	"	3	391			3	391	2	190
McMurrich	"	"	3	218			3	218	3	567
Perry	"	"							1	200
Proudfoot	"	"	1	100			1	100		
Hardy	Parry Sound..	H. J. Ellis, Powassan.					1	201	1	198
Himsworth	"	"	5	611			6	611	4	522
Laurier	"	"	2	300			1	200		
Nipissing	"	"	4	331			1	100		
Patterson	"	"							2	257
Bonfield.....	Nipissing	W. J. Parsons, North	5	375			4	325	6	470
Boulter	"	" Bay	3	402					3	8,150
Chisholm	"	"	3	315	1	6½	2	195	5	120
Ferris	"	"	7	503			5	412	7	442
Anson	Haliburton ...	R. H. Baker, Minden..								
Glamorgan ..	"	"	1	100			1	100		
Hindon	"	"								
Lutterworth..	"	"	2	177			1	87	1	90
Minden	"	"	3	305					3	191
Snowdon	"	"	1	146			2	146	2	198
Stanhope.....	"	"								
Anstruther ...	Peterborough.	William Hales, Apsley							1	100
Burleigh, N.D.	"	"	1	94			1	200	1	92
" S.D.	"	"	1	175						
Chandos	"	"	1	100			2	200		
Methuen	"	"	1	125						
Cardiff.....	Haliburton ...	A. N. Wilson, Kinmount	1	100			2	200	1	200
Cavendish.....	Peterborough.	"	1	155	1	49	2	327		
Galway	"	"	1	127					2	302
Monmouth ...	Haliburton ...	"	5	404	1	12	7	750	3	494
Bangor	Hastings	W. J. Douglas, Green-	2	168						
Carlow.....	"	" view	4	551½	1	80	3	339½	1	193
Cashel	"	"	1	100			2	200	2	200
Dungannon ..	"	"	2	199			2	199	2	439
Faraday	"	"	3	442			3	442	1	202½
Herschel	"	"	7	692	1	63¾	2	195	5	548
Limerick.....	"	"	1	100						
Mayo	"	"	1	129	2	43			5	1,312
Monteagle ...	"	"	8	734			2	201	7	916
McClure	"	"	2	288			1	105	1	98
Wicklów	"	"	7	661	1	5	1	100	2	379
Wollaston....	"	"	1	147½			2	147½	2	258½
Algona, S.....	Renfrew.....	Adam Prince, Renfrew								
Brougham ...	"	"	5	654½	3	210	3	292	10	667
Brudenell	"	"	2	136			1	46		
Burns	"	"								

Appendix No. 14.—Continued.

Township.	District or County.	Agent.	No. of persons located.	No. of acres located.	No. of purchasers.	No. of acres sold.	No. of persons cancelled.	No. of acres resumed.	No. of patents issued.	No. of acres patented.
Grattan	Renfrew	Adam Prince, Renfrew	3	281	..	..	..	..	3	251
Griffith	"	"	1	93	..	..	..	..	..	..
Hagarty	"	"	2	152½	1	26	..	..	5	181
Jones	"	"	2	298	..	..	..	..	..	..
Lyell	"	"	1	101	..	..	1	200	2	294
Lyndoch	"	"	2	316	1	400	1	106	2	600
Matawatchan ..	"	"	2	198	..	..	..	..	1	100
Radcliffe .....	"	"	..	..	..	..	..	..	..	..
Raglan .....	"	"	..	..	..	..	6	657	2	535
Richards	"	"	4	509	1	149	1	105	6	222
Sebastopol	"	"	1	82	..	..	..	..	..	..
Sherwood	"	"	3	238	..	..	1	86	..	..
Algona, N.	Renfrew	Finlay Watt, Pembroke	1	103	..	..	..	..	..	..
Alice	"	"	1	109	..	..	..	..	3	350
Buchanan	"	"	1	168	..	..	..	..	..	..
Fraser	"	"	1	101	..	..	..	..	..	..
Head .....	"	"	..	..	..	..	..	..	..	..
Maria .....	"	"	..	..	..	..	..	..	..	..
McKay .....	"	"	..	..	..	..	..	..	..	..
Petawawa	"	"	1	102	..	..	1	102	..	..
Rolph	"	"	1	100	..	..	1	100	..	..
Wilberforce .....	"	"	..	..	..	..	..	..	..	..
Wylie (pt.) ....	"	"	..	..	..	..	..	..	..	..
Calvin	Nipissing	Robt. Small, Mattawa	1	200	..	..	1	200	6	569
Cameron (pt.).	"	"	17	2,029	2	98	5	476	1	236
Lauder .....	"	"	..	..	..	..	..	..	..	..
Mattawan .....	"	"	..	..	..	..	..	..	2	334
Papineau	"	"	2	300	..	..	3	300	4	501
Korah	Algoma	Edward Noble, Sault	1	80	..	..	..	..	..	..
Parke	"	Ste. Marie	..	..	..	..	..	..	1	80
Prince	"	"	4	503	1	161	5	645	..	..
Aberdeen	Algoma	Thos. Dodds, Thessalon	3	399½	..	..	2	348½	1	127½
" add. ....	"	"	..	..	..	..	..	..	..	..
Galbraith	"	"	2	361	2	22½	..	..	3	490
Lefroy .....	"	"	..	..	..	..	..	..	..	..
Plummer .....	"	"	..	..	..	..	..	..	..	..
" add. ....	"	"	..	..	..	..	..	..	..	..
St. Joseph Is'd	Algoma	W. E. Whybourne,	..	..	..	..	..	..	..	..
St. Joseph	"	Marksville	11	1,123½	..	..	9	776½	6	543
Ch'nl Is'd .....	"	"	..	..	..	..	..	..	1	5
Baldwin	Algoma	Edward Arthurs,	..	..	1	40½	..	..	1	40
Merritt	"	Espanola	1	150	..	..	1	150	1	160½
Blake	Thunder Bay.	W. A. Burrows, Port	1	160	..	..	2	320	5	720
Comnee	"	Arthur	4	446½	3	41	3	284	12	1,142
Crooks	"	"	5	658	..	..	7	913	5	816
Dawson Road.	"	"	18	1,633½	5	165	18	1,412	4	377
Dorion	"	"	4	638½	..	..	4	560	2	312½
Gillies	"	"	1	200	..	..	1	160	1	56
Gorham	"	"	4	552½	2	135	2	270	8	1,210
Lybster	"	"	3	336½	1	294	2	314½	3	492
Marks	"	"	1	156½	2	159½	5	779	3	476
McGregor	"	"	7	1,107	2	84	62	9,877½	..	..
McIntyre .....	"	"	..	..	..	..	..	..	3	462
O'Connor .....	"	"	..	..	4	10½	..	..	7	1,051

Appendix No. 14.—Continued.

Township.	District or County.	Agent.	No. of persons located.	No. of acres located.	No. of purchasers.	No. of acres sold.	No. of persons cancelled.	No. of acres resumed.	No. of patents issued.	No. of acres patented.
Oliver.....	Thunder Bay.	W. A. Burrows, Port	2	321 $\frac{1}{2}$	2	4	1	162	4	481
Paipoonge, N R	"	" Arthur	...	...	...	...	...	...	1	130
" S R	"	"	...	...	...	...	...	...	1	100
Pardee.....	"	"	1	160	1	80	1	160	...	...
Pearson.....	"	"	9	1,403 $\frac{1}{2}$	2	93 $\frac{1}{2}$	8	1,315 $\frac{1}{2}$	1	160 $\frac{1}{2}$
Scoble.....	"	"	7	686 $\frac{1}{2}$	1	161 $\frac{1}{2}$	13	1,806	3	429
Stirling.....	"	"	11	1,531	...	...	7	1,040 $\frac{1}{2}$	...	...
Strange.....	"	"	4	628 $\frac{1}{2}$	...	...	4	627 $\frac{1}{2}$	1	157
Ware.....	"	"	10	1,551 $\frac{1}{2}$	1	53	4	635 $\frac{1}{2}$	6	1,164 $\frac{1}{2}$
Atwood.....	Rainy River..	William Cameron,	...	...	...	...	...	...	...	...
Blue.....	"	" Stratton	3	367	...	...	5	531	...	...
Curran.....	"	"	1	164	1	2	2	324	1	162
Dewart.....	"	"	3	480	1	2	3	486	...	...
Dilke.....	"	"	...	...	...	...	...	...	...	...
Morley.....	"	"	3	322	2	4	3	322	2	324
Morson.....	"	"	12	1,561 $\frac{1}{2}$	...	...	16	1,630	2	166
McCrosson...	"	"	6	801 $\frac{1}{2}$	2	5 $\frac{1}{2}$	7	918	7	1,108 $\frac{1}{2}$
Nelles.....	"	"	4	648	2	84	6	968	3	485
Pattullo....	"	"	7	800	3	12	6	719	3	409
Pratt.....	"	"	1	162	1	44 $\frac{3}{4}$	1	159 $\frac{1}{2}$	4	530
Rosebery...	"	"	...	...	...	...	...	...	...	...
Shenston....	"	"	...	...	...	...	...	...	...	...
Sifton.....	"	"	11	1,246 $\frac{1}{2}$	...	...	6	1,008 $\frac{1}{2}$	4	589
Spohn.....	"	"	7	1,074 $\frac{1}{2}$	1	29	9	1,310 $\frac{1}{2}$	4	544
Sutherland...	"	"	5	797 $\frac{1}{2}$	1	45 $\frac{1}{2}$	6	958	1	203 $\frac{1}{2}$
Tait.....	"	"	8	949	4	242 $\frac{1}{2}$	3	488	1	160
Tovell.....	"	"	5	859	1	79 $\frac{1}{4}$	7	970	2	325
Worthington..	"	"	...	...	...	...	1	81	3	350
Aylsworth...	Rainy River..	Alex. McFayden, Emo.	...	...	...	...	...	...	2	320
Barwick.....	"	"	...	...	...	...	...	...	...	...
Burriess.....	"	"	1	183	1	2	...	...	6	658 $\frac{1}{2}$
Carpenter.....	"	"	...	...	1	$\frac{1}{2}$	...	...	3	398
Crozier.....	"	"	...	...	1	37	...	...	5	658
Dance.....	"	"	8	1,270 $\frac{1}{2}$	2	38 $\frac{1}{2}$	9	1,429 $\frac{1}{2}$	6	998 $\frac{1}{2}$
Devlin.....	"	"	...	...	1	40 $\frac{1}{2}$	...	...	...	...
Dobie.....	"	"	1	160 $\frac{1}{2}$	...	...	1	160 $\frac{1}{2}$	...	...
Fleming.....	"	"	1	160 $\frac{1}{2}$	...	...	1	160 $\frac{1}{2}$	...	...
Kingsford....	"	"	6	960	1	1	8	1,277 $\frac{1}{2}$	3	428
Lash.....	"	"	1	164	...	...	1	164	...	...
Mather.....	"	"	4	665	...	...	3	500	...	...
Miscampbell..	"	"	3	479 $\frac{1}{2}$	2	159 $\frac{1}{2}$	6	984 $\frac{1}{2}$	2	318 $\frac{1}{2}$
Potts.....	"	"	5	815 $\frac{1}{2}$	1	40	7	1,015 $\frac{1}{2}$	6	898
Richardson...	"	"	5	849	1	80	7	1,166	1	161
Roddick.....	"	"	...	...	...	...	...	...	...	...
Woodyatt.....	"	"	...	...	...	...	...	...	...	...
Aubrey.....	Kenora	J. E. Gibson, Dryden..	5	558	2	36	5	470 $\frac{1}{2}$	...	...
Britton.....	"	"	...	...	...	...	1	160	...	...
Eton.....	"	"	6	927	1	50	6	886	...	...
Langton.....	"	"	3	396 $\frac{1}{2}$	1	78 $\frac{1}{2}$	3	476 $\frac{1}{2}$	...	...
Melgund.....	"	"	4	571	1	3	8	830 $\frac{1}{2}$	...	...
Mutrie.....	"	"	6	936 $\frac{1}{2}$	4	165	7	1,098	1	6
Redvers.....	"	"	5	589 $\frac{1}{2}$	5	254	3	439 $\frac{1}{2}$	4	394
Rowell.....	"	"	2	222 $\frac{1}{2}$	...	...	2	222 $\frac{1}{2}$	...	...
Rugby.....	"	"	...	...	...	...	...	...	...	...
Sanford.....	"	"	3	456	...	...	3	456	1	159 $\frac{1}{2}$
Southworth...	"	"	1	136	2	149	...	...	3	3
Temple.....	"	"	5	703 $\frac{1}{2}$	2	108	5	681	...	...

Appendix No. 14.—Concluded.

Township.	District or County.	Agent.	No. of persons located.	No of acres located.	No. of purchasers.	No. of acres sold.	No. of persons cancelled.	No. of acres resumed.	No. of patents issued.	No. of acres patented.
Van Horne ...	Kenora	J. E. Gibson, Dryden..	2	179	1	40	1	110	3	240
Wabigoon ...	"	"	3	497	2	73½	4	644½	2	214
Wainwright ...	"	"	3	474½	.....	.....	1	160	.....	.....
Zealand	"	"	13	1,935½	1	28	9	1,352	3	624
Melick	Kenora	W. L. Spry, Kenora...	9	1,135½	2	61	6	933	2	319
Pellatt	"	"	4	381½	.....	.....	3	356½	1	40
Balfour	Sudbury.....	J. K. MacLennan, Sud-	.....	.....	.....	.....	.....	.....	1	154½
Blezard	"	" " " bury	1	61½	2	394½	1	157	10	396
Broder	"	"	1	138	.....	.....	1	138	2	319
Capreol	"	"	3	353	1	99	1	149	2	99
Chapleau .....	"	"	.....	.....	.....	.....	.....	.....	.....	.....
Dill	"	"	3	453½	.....	.....	.....	.....	1	127
Garson	"	"	5	657¾	4	221	5	533	8	460
Hanmer	"	"	3	266½	1	45½	1	101½	.....	.....
Lumsden	"	"	9	1,374¾	1	1½	2	320	.....	.....
Morgan	"	"	2	317	.....	.....	2	317	.....	.....
Neelon	"	"	3	287	.....	.....	1	165	2	200
Rayside	"	"	2	263½	1	61½	.....	.....	2	190
Appelby	Sudbury	John Brown, Markstay	6	902½	3	7	.....	.....	3	400
Casimir	"	"	2	304	.....	.....	.....	.....	.....	.....
Dunnet	"	"	1	159	1	1½	.....	.....	3	486
Hagar	"	"	12	1,915½	1	80½	6	958½	2	240
Jennings .....	"	"	.....	.....	.....	.....	.....	.....	.....	.....
Kirkpatrick ..	Nipissing ...	"	3	416½	.....	.....	.....	.....	3	417
Ratter	Sudbury	"	1	160	.....	.....	.....	.....	2	320
Caldwell	Nipissing	J. A. Philion, Sturgeon	2	321	.....	.....	.....	.....	3	219
Cosby	Sudbury	" Falls	1	160½	.....	.....	.....	.....	.....	.....
Grant	Nipissing ..	"	7	979½	.....	.....	4	423	2	290
Macpherson ..	"	"	11	1,623	.....	.....	1	156	4	580½
Martland	Sudbury	"	6	786½	1	1½	1	159½	2	322
Springer	Nipissing	"	5	667	.....	.....	2	320	5	606
Abinger	Lennox and Addington	Charles Both, Denbigh	1	200	.....	.....	.....	.....	2	400
Canonto, S...	Frontenac....	"	.....	.....	.....	.....	.....	.....	.....	.....
" N...	"	"	.....	.....	.....	.....	.....	.....	.....	.....
Clarendon...	"	"	1	151	1	1½	.....	.....	3	406
Denbigh..	Lennox and Addington	"	2	150	.....	.....	2	150	.....	.....
Miller (pt.)...	Frontenac....	"	.....	.....	.....	.....	.....	.....	.....	.....
Palmerston	"	"	.....	.....	.....	.....	.....	.....	.....	.....
McClintock ...	Haliburton....	Unattached	1	100	.....	.....	.....	.....	.....	.....
Airy	Nipissing	"	2	399	.....	.....	.....	.....	.....	.....
Finlayson .....	"	"	.....	.....	.....	.....	.....	.....	.....	.....
Murchison .....	"	"	.....	.....	.....	.....	.....	.....	.....	.....
Sabine .....	"	"	.....	.....	.....	.....	.....	.....	1	226
			610	78,192½	147	6,209½	529	69,474½	449	59,300
					No. of lots assigned		No. of acres assigned			
					217		27,441			

Appendix No. 15.

Statement showing the number of purchasers and of acres sold; of lots resumed for non-performance of the settlement duties; and of patents issued in Townships other than Free Grant during the year ending 31st October, 1917.

Township.	District or County.	Agent.	No. of acres sold.	No. of pur- chasers.	No. of sales cancelled.	No. of acres resumed.	No. of patents issued.	No. of acres patented.
Armstrong ...	Temiskaming.	J. W. Bolger, New Lis-	159	1			7	1,120
Auld	"	" " keard	557	4			3	113
Beauchamp...	"	" " "	793 $\frac{1}{2}$	5	1	160	4	637
Brethour	"	" " "	536	4	2	309 $\frac{1}{2}$	4	360
Bryce	"	" " "	479 $\frac{1}{2}$	3			1	40
Bucke	"	" " "	120	1	2	322	1	120
Cane	"	" " "	887	6	6	964	5	199
Casey	"	" " "	743 $\frac{1}{2}$	5			17	1,375
Dymond	"	" " "	313	2			3	634 $\frac{1}{2}$
Firstbrook	"	" " "	275	2	2	319	1	2
Harley	"	" " "	475	3			3	400
Harris	"	" " "	480	3			3	243 $\frac{1}{2}$
Henwood	"	" " "	350	3	1	161 $\frac{1}{2}$	3	400
Hilliard	"	" " "	552 $\frac{3}{4}$	4	2	316 $\frac{1}{2}$	3	400
Hudson	"	" " "	281	3			5	545
Kerns	"	" " "	320	2			9	1,441
Lundy	"	" " "	481 $\frac{1}{2}$	3	1	162 $\frac{1}{2}$		
Tudhope	"	" " "	455 $\frac{1}{2}$	3			4	271 $\frac{1}{2}$
Smyth	Temiskaming.	J. A. Browning, Elk Lake	249	2	1	90 $\frac{1}{2}$		
Lorrain	Temiskaming.	Neil J. McAulay, Hailey- bury	21	1			5	760
Beatty	Temiskaming.	F. E. Ginn, Matheson ..	871 $\frac{1}{2}$	6	2	234 $\frac{1}{2}$	7	396
Benoit	"	" " "	2,637 $\frac{1}{4}$	17	3	478 $\frac{1}{2}$	1	142 $\frac{1}{2}$
Bond	"	" " "	475	3				
Bowman	"	" " "	639 $\frac{1}{2}$	4			4	639 $\frac{1}{2}$
Calvert	"	" " "	158	1	5	792		
Carr	"	" " "	1,319	10			4	366 $\frac{1}{2}$
Clergue	"	" " "	321	2	4	641	1	159
Currie	"	" " "	155 $\frac{1}{2}$	1	1	144	1	156 $\frac{1}{2}$
Dundonald	"	" " "	1,433 $\frac{3}{4}$	10	4	543	1	5
Evelyn	"	" " "	5,270	33				
German	"	" " "	2,184	14				
Hislop	"	" " "	2,366	15	2	308 $\frac{1}{2}$	4	641
Matheson	"	" " "	3,150	20	1	477	2	200
Mountjoy	"	" " "	4,636 $\frac{1}{2}$	30	5	791 $\frac{1}{2}$	1	148 $\frac{1}{2}$
McCart	"	" " "	1,725 $\frac{1}{2}$	11	1	160		
Playfair	"	" " "	2,278 $\frac{1}{2}$	14			2	321
Stock	"	" " "	2,858	18	3	476 $\frac{1}{2}$		
Taylor	"	" " "	633 $\frac{1}{2}$	4	1	162 $\frac{1}{2}$	2	310 $\frac{1}{2}$
Walker	"	" " "	455 $\frac{1}{2}$	3	3	455	3	477
Blount	Temiskaming.	S. J. Dempsay, Cochrane	1,125	9			1	1
Brower	"	" " "	320	2			2	322
Calder	"	" " "	1,661	11	84	12,564	1	119
Clute	"	" " "	2,800	18	10	1,427	2	295
Colquhoun	"	" " "	151	1				
Fauquier	"	" " "	7,516	51				
Fournier	"	" " "	610 $\frac{1}{2}$	4	58	8,801 $\frac{1}{2}$		
Fox	"	" " "	2,872	18	4	631		
Glackmeyer ..	"	" " "	940	6	3	489	7	1,038
Kennedy	"	" " "	1,507	10				
Lamarche	"	" " "	619	4			1	163 $\frac{1}{2}$
Leitch	"	" " "	301	2				
Newmarket...	"	" " "	481 $\frac{1}{2}$	3	2	322		
Pyne	"	" " "	477 $\frac{1}{2}$	3				
Shackleton ...	"	" " "	9,502	66	31	4,711		

Appendix No. 15.—Continued.

Township.	District or County.	Agent.	No. of acres sold.	No. of pur- chasers.	No. of sales cancelled.	No. of acres resumed.	No. of patents issued.	No. of acres patented.
Catharine	Temiskaming.	Jos. Woollings, Englehart	322	2	1	163	2	153
Chamberlain ..	"	"	554½	4	.....	.....	4	623
Dack	"	"	647½	4	.....	.....	4	584½
Eby .....	"	"	.....	.....	.....	.....	9	360
Ingram	"	"	720½	5	4	640	2	161½
Marter	"	"	160	1	.....	.....	6	938
Marquis	"	"	320	2	1	160	.....	.....
Otto	"	"	145½	1	.....	.....	8	298½
Pacaud	"	"	1,880	12	4	632½	5	434½
Pense	"	"	482	3	1	160	.....	.....
Robillard	"	"	402	3	.....	.....	2	320
Savard	"	"	632½	4	2	479	6	953½
Sharpe	"	"	403½	3	.....	.....	4	434
Truax	"	"	79½	1	1	159½	.....	.....
Evanturel .....	"	"	.....	.....	.....	.....	7	941½
Casgrain	Algoma	T. V. Anderson, Hearst.	1,544	10	2	299	.....	.....
Eilber	"	"	491	3	.....	.....	.....	.....
Hanlan	"	"	1,812	12	2	302	.....	.....
Kendall	"	"	600	4	1	150	2	200
Lowther	"	"	743	5	.....	.....	.....	.....
Forbes	Thunder Bay.	W. A. Burrows, Port	3,161½	24	.....	.....	.....	.....
Lyon	"	Arthur	504½	3	.....	.....	1	148
Nepigon	"	"	4,204½	27	1	166	107	16,414
Aweres	Algoma	E. Noble, Sault Ste. Marie	678	5	3	474	2	5½
Tarentorus	"	"	838	6	1	160	.....	.....
Vankoughnet ..	"	"	.....	.....	.....	.....	1	184
Watten	Rainy River ..	C. J. Hollands, Fort Frances	150	1	.....	.....	.....	.....
Day	Algoma	Thos. Dodds, Thessalon.	8	1	1	132	.....	.....
Gladstone	"	"	143	1	.....	.....	.....	.....
Haughton .....	"	"	.....	.....	.....	.....	1	155½
Kirkwood	"	"	141	1	.....	.....	.....	.....
Parkinson .....	"	"	.....	.....	.....	.....	3	394
Patton .....	"	"	.....	.....	.....	.....	1	160
Rose .....	"	"	.....	.....	.....	.....	4	627
Thompson	"	"	159	1	.....	.....	2	310½
Hallam	Algoma	R. W. Teasdale, Massey	.....	.....	.....	.....	2	200
Harrow .....	"	"	.....	.....	.....	.....	1	160
May	"	"	378	2	.....	.....	2	378
Salter	"	"	310	3	.....	.....	.....	.....
Victoria	"	"	296	2	.....	.....	.....	.....
Dowling	Sudbury	J. K. MacLennan, Sudbury	201	2	.....	.....	2	244½
Scollard	Nipissing	J. A. Phillion, Sturgeon Falls	473½	3	.....	.....	.....	.....
Mason	"	"	110	1	.....	.....	1	7½
Hugel	Nipissing	John Brown, Markstay.	160½	1	.....	.....	.....	.....
Loudon	"	"	160	1	1	130½	.....	.....
Widdifield	Nipissing	W. J. Parsons, North Bay	829	5	4	640½	.....	.....
Admaston	Renfrew	Unattached .....	.....	.....	.....	.....	6	700
Bagot	"	"	335	4	.....	.....	5	495
Bromley .....	"	"	.....	.....	.....	.....	1	380
Alfred	Prescott	Unattached	343	1	.....	.....	1	343

Appendix No. 15.—Continued.

Township.	District or County.	Agent.	No. of acres sold.	No. of pur- chasers.	No. of sales cancelled.	No. of acres resumed.	No. of patents issued.	No. of acres patented.
Adolphustown.	Lennox	Unattached	9	1			1	9
Sheffield	"	"					2	300
Artemesia	Grey	Unattached					3	265
Bentinck	"	"					2	151
Glenelg	"	"					2	149
Proton	"	"					4	306
Sullivan	"	"					1	50
Arran	Bruce	Unattached					1	98½
Brant	"	"					1	50
Bruce	"	"					5	450
Greenock	"	"					1	96
Huron	"	"					1	50½
Kincardine	"	"					1	100
Saugeen	"	"					1	129
Barrie	Frontenac ...	Unattached					2	200
Bedford	"	"					1	1½
Kennebec	"	"	216½	1			4	226½
Bathurst	Lanark	Unattached					1	165
Beckwith	"	"	3	1			1	3
Elmsley	"	"					1	49
Lanark	"	"					1	100
Plantagenet ..	"	"					1	50
S. Sherbrooke.	"	"					1	50
N. Sherbrooke.	"	"					1	100
Sandwich, E..	Essex	Unattached	8½	1				
Sandwich, W..	"	"	50¾	4			2	1
Windsor (City)	Essex	Unattached					3	16
Seymour	N'thumberl'd.	Unattached					1	21
Dennison	Sudbury	Unattached	193	2				
Drury	"	"					2	91
Dryden	"	"	772	5				
Falconbridge ..	"	"	470	3			22	981
Graham	"	"	262	2			2	100
Levack	"	"	200	1			3	241
Lorne	"	"	531	4			1	138
Louise	"	"	597	6			6	638½
MacLennan	"	"					5	183
Snider	"	"					2	100
Waters	"	"	170½	2			1	160
Badgerow	Nipissing	Unattached	478	3			4	643
Bastedo	"	"	320	2			2	320
Field	"	"					1	5
Gibbons	"	"	480	2			1	320
Malachi	Kenora	Unattached	60	15			21	35½
Redditt	"	"	27	4			4	27
Carden	Victoria	Unattached	100	1			1	100
Dalton	"	"					2	154
Laxton	"	"	152	2			4	352
Somerville	"	"	98	1				
Edwardsburgh	Grenville	Unattached					1	50

Appendix No. 15.—Concluded.

Township.	District or County.	Agent.	No. of acres sold.	No. of pur- chasers.	No. of sales cancelled.	No. of acres resumed.	No. of patents issued.	No. of acres patented.
Harvey	Peterborough.	Unattached	202	1			1	210
Haughton.....	Norfolk.....	Unattached					1	50
Hungerford...	Hastings.....	Unattached					1	50
Tudor	"	"					2	199
Humberstone .	Welland	Unattached					1	89 $\frac{3}{4}$
Matchedash...	Simcoe	Unattached	88	3			2	155
Oro	"	"					1	50
Peel.....	Wellington...	Unattached					2	150
Rama	Ontario.....	Unattached					1	100
Cobden	Algoma.....	Unattached	92	1			3	373 $\frac{1}{2}$
Gould	"	"	146	1				
Townsite—								
Hearst	"	T. V. Anderson	4 $\frac{7}{8}$	10				
Hilton	"	W. E. Whybourne	8 $\frac{1}{2}$	2			1	8
Townsite—								
Armstrong...	Temiskaming.	Unattached	4	2				
Grant	Kenora	"	3 $\frac{1}{2}$	16			2	$\frac{1}{2}$
MacFarlane.	"	"	3	2			3	23 $\frac{1}{4}$
Sioux Look- out.....	"	"					6	3
Winnipeg River Crossing..	"	"	1	1			5	23 $\frac{1}{4}$
WATER LOTS.								
Township of Humberstone	Welland	Unattached	90	1				
Saltfleet.....	Wentworth ..	"					1	5 $\frac{1}{4}$
City of Windsor	Essex	"					1	13 $\frac{1}{4}$
ISLANDS.								
Mason—								
Part Island C	Nipissing	J. A. Philion	7 $\frac{1}{2}$	1				
S. Elmsley—								
Part Island 2	Lanark	Unattached	9 $\frac{3}{4}$ 1 $\frac{0}{100}$	1				
" 3	"	"	4 $\frac{5}{8}$ 1 $\frac{0}{100}$	1				
" 4	"	"	1 $\frac{3}{4}$ 1 $\frac{0}{100}$	1				
" 5	"	"	1 $\frac{2}{3}$ 1 $\frac{0}{100}$	1				
Pt. Island in Otter Lake	"	"	4 $\frac{1}{2}$ 1 $\frac{0}{100}$	1				
N. Elmsley—								
Pt. Island in Sand Lake	"	"	7 $\frac{1}{2}$ 1 $\frac{0}{100}$	1				
Bedford—								
Island 34 ...	Frontenac ...	"	$\frac{1}{2}$	1				
Escott (rear of).								
Flat Island .	Leeds	"	2 $\frac{1}{2}$	1				
Malachi—								
6 Islands ...	Kenora	"	14 $\frac{1}{2}$	6			6	14 $\frac{1}{2}$
Total			104,385 $\frac{43}{100}$	776	276	42,263	501	51,745 $\frac{1}{2}$

W. R. LEDGER, Sales Clerk.

W. C. CAIN, Chief Clerk in Charge.

ALBERT GRIGG,

Deputy Minister of Lands and Forests.

Appendix No. 16.

Statement of Crown Surveys completed and closed during the twelve months ending
October 31st, 1917.

No.	Date of Instructions.	Name of Surveyor.	Description of Survey.	Amount Paid.	Area in Acres.
				\$ c.	
1	Apr. 15, 1915	J. S. Dobie	Survey of islands north and west of Manitoulin Island, Districts of Algoma and Manitoulin	5,388 24	
2	Apr. 20, 1915	Lang & Ross ...	Survey of Islands on the North Shore of Lake Huron and Georgian Bay, Districts of Manitoulin, Sudbury and Parry Sound	4,500 08	
3	Apr. 16, 1915	T. J. Patten ...	Survey of islands in Lake Huron, east and north-east of Manitoulin Island, District of Manitoulin..	6,036 98	
4	May 26, 1916	Phillips & Benner	Survey of Nipigon Forest Reserve in District of Thunder Bay	3,300 00	
5	June 13, 1916	David Beatty ..	Survey of the Township of Foleyet, in the District of Sudbury	1,637 34	51,470
6	June 30, 1916	R. S. Code	Survey of the Township of Muskogee, in the District of Sudbury	819 82	51,589
7	Sept. 5, 1916	J. W. Fitzgerald	Survey of Township outlines in the District of Algoma	1,308 55	
8	Sept. 21, 1916	McAuslan & Anderson	Survey of Town Plot of Bear Island in the District of Nipissing	533 41	
9	July 31, 1916	R. S. Code	Survey of part of the Township of Keith, in the District of Sudbury	3,098 70	25,989
10	Oct. 18, 1916	McAuslan & Anderson	Survey of the line between Townships of Gooderham and Kenny, District of Nipissing	360 21	
11	Oct. 23, 1916	Sutcliffe & Neelands	Survey of lines in the Townships of Ogden, Bristol and Thornloe, District of Timiskaming	657 92	
12	Nov. 25, 1916	McAuslan & Anderson	Survey of certain lots in the Township of Notman, in the District of Nipissing	158 76	
13	Feb. 19, 1916	McAuslan & Anderson	Survey of Mesomikenda and Minisnakawa Lakes, in the District of Sudbury	610 31	
14	May 31, 1917	J. R. Gill	Survey of line in the Township of Sweeny, in the District of Sudbury	389 44	
15	Jan. 27, 1917	Alex. Baird	Assisting Jas. Hutcheon, Inspector of Surveys in outlining water lots of Fishing Point, Pelee Island	65 00	
				28,864 76	129,048

L. V. RORKE,
Director of Surveys.

ALBERT GRIGG,
Deputy Minister of Lands and Forests.

Appendix No. 17.

Statement of Surveys in progress during the twelve months ending October 31st, 1917.

No.	Date of Instructions.	Name of Surveyor.	Description of Surveys.	Amount Paid.
				\$ c.
1	Apr. 20, 1915	Lang & Ross ...	Survey of islands on the North Shore of Lake Huron and Georgian Bay, Districts of Manitoulin, Sudbury and Parry Sound.	4,000 00
2	July 13, 1917	D. J. Gillon	Survey of the Namakan River, District of Rainy River	1,000 00
3	July 24, 1917	J. L. Morris	Survey of the Township of Kapuskasing, District of Algoma	3,850 00
4	Aug. 30, 1917	David Beatty ' ..	Re-survey of the Township of O'Brien, District of Algoma	3,000 00
5	Sept. 7, 1917	A. L. Russell ...	Survey of the shores of Lower Shebandowan Lake, District of Thunder Bay	500 00
6	Oct. 19, 1917	H. M. Anderson.	Re-survey of the Township of Owens, District of Timiskaming	1,000 00
7	Oct. 24, 1917	J. S. Dobie	Survey of the Township of Idington, District of Algoma	1,000 00
				<u>14,350 00</u>

L. V. RORKE,
Director of Surveys.

ALBERT GRIGG,
Deputy Minister of Lands and Forests.

Appendix No. 18.

Statement of Municipal Surveys for which instructions issued during the twelve months ending October 31st, 1917.

No.	Name of Surveyor.	No.	Date of Instructions.	Description of Survey.
1	G. A. McCubbin	708	Oct. 31st, 1916.	To survey the road allowance between lots 24 and 25, across concession 1, west of the Communication Road, Township of Harwich, in the County of Kent, and to plant stone or other durable monuments to mark the said road allowance.
2	C. A. Jones .	709	Nov. 2nd, 1916.	To survey the boundary line between the Townships of Greenock and Culross, in the County of Bruce, and to plant stone or other durable monuments to mark the said boundary.
3	Jas. J. McKay	710	Dec. 5th, 1916.	To survey the limits of that portion of the original allowance for road between the 2nd and 3rd concessions of the Township of Barton, in the County of Wentworth (now called Main Street) lying in the City of Hamilton, between the original allowance for road between lots Nos. 18 and 19 of the said Township (Dundurn St.), on the east, and the division line between the Townships of Barton and Ancaster on the west, to be defined and marked by durable monuments placed at the intersections of the said road allowance (Main Street) with Dundurn Street, the division line between lots Nos. 19 and 20, the Hamilton and Dundas Stone Road, Macklin Street and Paradise Road.
4	Oliver Smith.	711	May 30th, 1917	To survey the concession road allowance between concessions 4 and 5 in the Township of Verulam across lot No. 5, and that stone or other durable monuments be placed at the front angles of lot No. 5 in the 5th concession.
5	Oliver Smith.	712	July 24th, 1917	To survey the concession line between concessions 9 and 19, opposite lot 17, Township of Cartwright.
6	R. W. De-Morest	713	Sept. 4th, 1917.	To survey the concession line between concessions 1 and 2 across lots 1 to 4 inclusive, in the Township of Balfour, and that stone or other durable monuments be placed at the front angles of the lots fronting on said part of concession.
7	W. S. Gibson.	714	Sept. 20th, 1917	To survey the original road allowance between lots 20 and 21 in the 2nd concession, of the Township of York, west of Yonge Street, and to mark the same by monuments of stone or other durable material.
8	E. D. Bolton..	715	Sept. 21st, 1917	To survey the road allowance between lots 10 and 11, across concessions 9 and 10, in the Township of Egremont, in the County of Grey, and to plant stone or other durable monuments to mark the boundaries of said road allowance.

L. V. RORKE,
Director of Surveys.

ALBERT GRIGG,
Deputy Minister of Lands and Forests.

Appendix No. 19.

Statement of Municipal Surveys confirmed during the twelve months ending
October 31st, 1917.

No.	Name of Surveyor	No.	Date of Instructions.	Description of Surveys.	Date when confirmed under R.S.O. 1914, Chap. 166, Secs. 10-15 inclusive.
1	W. G. McGeorge	697	Mar. 24th, 1915	To survey the concession line between concessions 2 and 3, in the Township of Harwich, from lot No. 3 to the waters of the Rond Eau and to plant stone or iron monuments on each side thereof.	Apr. 4th, 1917.
2	George A. McCubbin	700	June 22nd, 1915	To survey the line in the Township of Zone from between the 3rd and 4th concessions across concessions 4, 5 and 6 to the Longwoods Road and to mark the said line by permanent monuments.	Dec. 15th, 1916
3	J. J. MacKay ..	704	Oct. 22nd, 1915	To survey the road allowance between the broken front and the first concession of the Township of North Grimsby, from the easterly limit of the said Township of North Grimsby to the allowance for road between lots Nos. 6 and 7 in the first and broken front concessions, and that durable monuments be planted defining the limits of the 66-foot reservation for a highway between the said broken front and the first concession of the Township of North Grimsby from the easterly limit of the said Township to the allowance for road between lots Nos. 6 and 7, in the first and broken front concessions.	Jan. 24th, 1917
4	George A. McCubbin	708	Oct. 31st, 1916	To survey the road allowance between lots 24 and 25, across concession 1, west of the Communication Road, Township of Harwich, in the County of Kent, and to plant stone or other durable monuments to mark the said road allowance.	Jan. 18th, 1917
5	Speight & Van Nost-rand.....	7477	Apr. 21st, 1915	To survey the easterly part of the Toronto and Hamilton Highway.	July 12th, 1917

L. V. RORKE,
Director of Surveys.

ALBERT GRIGG,
Deputy Minister of Lands and Forests.

*Appendix No. 20.*SURVEY OF THE EAST LIMIT AND THE EAST 22 MILES OF THE SOUTH LIMIT OF
NEPIGON FOREST RESERVE, DISTRICT OF THUNDER BAY.

PORT ARTHUR, December 21st, 1916.

SIR,—We beg to report that according to instructions dated May 26th, 1916, we have surveyed the east boundary and that part of the south boundary east of the township of Ledger, of the Nepigon Forest Reserve.

From the south-east angle of the township of Ledger, where the iron tube planted by O.L.S. T. B. Speight was found, the south boundary was run east astronomically, with reference to a meridian through its central point, a distance of twenty-two miles; from this point a meridian was run north ninety-eight miles to the north-east angle of the Reserve. Frequent observations were taken to ensure the correct bearing of the lines.

Wooden posts were planted at every mile on the lines and iron posts $1\frac{1}{4}$ in. in diameter at intervals of six miles, starting from west to east on the south boundary and from south to north on the east boundary. Posts were numbered from one to twenty-one on the south boundary and from one to ninety-seven on the east boundary. At the end of the 22nd mile on the south boundary and the 98th mile on the east boundary iron posts $1\frac{7}{8}$ in. in diameter, marked Nepigon Forest Reserve, were planted.

The ends of the 2nd, 4th, 38th, 40th, 46th and 79th miles on the east boundary coming in bodies of water, the posts were planted on the nearest shore and marked accordingly.

MINING CLAIMS.

No mining claim surveys were crossed. Where, from the tracing furnished us, it appeared that we should be in the neighborhood of M C 50 and 57, and M C 56 and 58, we were careful to search for these, but no evidence was found of any survey. Stakes were found with no marks on them as shown on pages 61 and 62 of field notes.

SOIL.

With the exception of the first mile and a half on the south boundary which is clay, the soil passed over was sand and muskeg; on the remainder of the south boundary there is no soil worth mentioning, it being almost entirely rock and small muskies. Going north on the east boundary after the first five or six miles the rock gradually becomes less prominent and the country in general varies from rolling to flat with an occasional rocky hill. The level country is usually in the form of muskeg or swamp, the only pronounced exception to this being immediately south of the Canadian Northern Railway where there is an area of level land about three-quarters of a mile across. From about six miles north of the Canadian Northern Railway to the end of the line the country is roughly about one-half muskeg or swamp, the remainder being low ridges of rock or both.

ROCK FORMATION.

The rock of the south boundary is all granite with an occasional small belt of diabase running through it, this formation appears to continue on the east boundary to the south side of the lake on the 36th mile; from the north side of this lake the Keewatin formation predominates up to the 57th mile where the granite comes in again for about four miles, then the formation is Keewatin with small belts of diabase up to the 65th mile where granite occurs again and continues up to about the end of the 68th mile. From here to the end of the line the rock is principally Keewatin with belts of diabase. From the 83rd mile northward there is considerable local attraction (the maximum noted was 39 degrees west on the 84th mile) indicating the presence of iron-bearing rocks.

TIMBER.

The principal timber throughout almost the entire line is spruce. On the south boundary for the first six miles the growth is thick and small and there is no timber of any value. This occurs again on the 9th and 11th miles; also on the east boundary, on the 89th to the 93rd miles the timber is small and thick and consists principally of birch, poplar and jack pine. With these exceptions, however, the country is well wooded with spruce, balsam, birch and some jack pine from 3 to 18 in. on the south boundary and for about six miles north on the east boundary where the poplar is present more frequently and the timber is somewhat larger from this point north, the largest timber being about 24 inches in diameter, but averaging from 5 to 8 inches. On the northerly half of the east boundary the muskegs and swamps occur more frequently, but the timber on the high ground remains the same with a few exceptions. In the swamps some cedar is met with but it is usually of a short, scrubby growth, the principal timber in the swamps being spruce, usually small, and dead tamarac. Some jack pine of sufficient size to be of value occurs on the 34th and 35th miles, the 39th, 40th and 41st miles, the 51st and 52nd miles, and some slightly smaller in size on the 96th mile.

The recently burned areas are small and occur on the 35th and 36th miles, the 56th mile, the 77th to the 79th mile, while a fire of comparatively recent date has been over the country from the north side of Lily lake to the 94th mile.

GAME, ETC.

Moose, deer and caribou are plentiful along the south boundary and the southerly part of the east boundary, but farther north, while present, they do not appear to be as numerous.

On the south boundary and north on the east boundary as far as about the 30th mile, beavers are very numerous, but from this point up to the 49th mile none of their work was seen; from this point they are absent again up to that part of the east boundary north of the 81st mile where they appear again.

The only kinds of fish seen or caught were pike, pickerel and whitefish. The waters of the lakes up to the lake at the 37th mile, while having no disagreeable taste, are dark in colour, but this lake and most of those north of it are clear, but notwithstanding this no trout were seen or caught.

During the survey frequent reference was made to the maps issued by the Dominion Geological Department, and the Department of the Interior. These were found to be very reliable except in the case of the topographical sheet for district south and east of the south boundary, but for this portion of the country all maps were found to be incorrect.

We have the honour to be, Sir,

Your obedient servants,

(Signed) PHILLIPS & BENNER,

Ontario Land Surveyors.

The Honourable, the Minister of Lands, Forests and Mines,
Toronto, Ontario.

Appendix No. 21.

SURVEY OF THE TOWNSHIP OF FOLEYET, IN THE DISTRICT OF SUDBURY.

PARRY SOUND, December 29th, 1916.

SIR,—I have the honour to report that under your instructions dated the 13th day of June, 1916, I have subdivided the township of Foleyet into farm lots. I commenced the survey at the south-east angle of the township by chaining the south boundary westward and planting posts making the lots 25.25 wide, exclusive of side-road allowance. At the side-road between lots 6 and 7 I observed Polaris at Eastern Elongation (Azimuth 1 degree 43 minutes) and ran line due north in centre of road allowance (1 chain wide), and after chaining the east boundary of the township one mile and a half north from said south-east corner, I turned angle from a long range of pickets and ran due west to intersection of said side-road line and checked angle which I found to be correct and continued the survey throughout the township observing Polaris frequently for meridian and correcting any small errors in direction of lines. I made survey of all lakes that my lines intersected as well as those that I found when travelling across country.

I made a careful traverse of Pishkanogama river, which is the outlet of Pishkanogama lake and which enters the township from the south on lot 19, and runs northerly and easterly through the township to lot 5, in concession 11, where it turns westerly to lot 9, thence northerly crossing the north boundary on lot 10. On lots 8, 9, 10 and 11 the river expands to the north and south, the largest expansion in concessions 8, 9 and 10 being known as Sand lake. There are no falls on the river but it breaks into rapids in concession 2 which continue to lot 13 in concession 3, and again into rapids in concession 8, which continue down to the bend westward on lot 6, concession 11.

There is a fall of about seventy feet between Pishkanogama lake and the river at the foot of the rapids on lot 13, concession 3, but I do not think that there is any feasible place on the river for creating a water power, and the same conditions

apply to the rapids further north where there is a difference in level of about fifty feet between the head and foot of rapids; there is no part of either rapids that cannot be run with a canoe.

The south four concessions of the township, east of side-road 24 and 25 is sandy and rolling and in places with hills from 20 to 50 ft. high. Commencing on lots 24 and 25 the country is broken with rocky ridges in some places more than 100 ft. high and wholly unfit for agricultural purposes. This rocky country extends northward through the township. North of the line between concessions 4 and 5 there is a gradual change of soil from sand to clay, and there is some fairly good agricultural land extending from the east boundary westward to the rocky belt in the western part of the township. I do not think that there is more than forty per cent. of the township fit for agricultural purposes.

The Canadian Northern Railway enters the township from the east in concession 3 and crosses the north boundary in concession 12 on lot 13.

The timber in the township is principally spruce and jack pine, a considerable part of the latter being large enough for railway ties and some suitable for lumber. There is a small area of red and white pine in concessions 1 and 2, extending from lot 10 to lot 15, and again there is considerable pine in concessions 6, 7, 8, 9 and 10, between side-road 6 and 7 and side-road 12 and 13. The rock formation is granite.

There are white fish, lake trout, speckled trout, pickerel and pike in Pishkano-gama lake, and I expect the same in the expansions of the river farther north although white fish and pickerel were the only kinds that we caught when camped there. The only game I saw was moose.

The village of Foleyet is on lots 5 and 6, in concession 6, and has a population composed chiefly of railway employees. It is a divisional point on the Canadian Northern Railway. There are about twenty houses besides the round house and machine shop.

I have the honour to be, Sir,

Your obedient servant,

(Signed) DAVID BEATTY,

Ontario Land Surveyor.

The Honourable, the Minister of Lands, Forests and Mines,
Toronto, Ontario.

Appendix No. 22.

SURVEY OF THE TOWNSHIP OF MUSKEGO, IN THE DISTRICT OF SUDBURY.

TORONTO, ONT., May 24th, 1917.

SIR,—I have the honour to submit the following report of the survey of the township of Muskego, in the district of Sudbury, under instructions received from your Department dated June 30th, 1916.

Commencing at the 18th mile post planted by O.L.S. T. B. Speight at the south-east angle of the township of Muskego, I proceeded with the survey, by cutting out and re-chaining the line between the township of Muskego and Keith. This line being run in the year 1909 was greatly obstructed by fallen timber, with a considerable growth of underbrush. Having chained my base along this line and determined the astronomical bearing of same, I proceeded with the survey in accordance with instructions, running north astronomically along the line between lots 6 and 7 for several miles, thence north astronomically along the line between lots 12 and 13, laying off the concession lines running east and west from the measurements set forth in the instructions finishing the south-east section of the township first, thence the north-east section, thence the north-west section, thence the south-west section.

Owing to the continued unfavourable weather which set in about the middle of October I was obliged to withdraw from the work without completing the traverse of the lakes and rivers, as it was impossible to travel the waters by canoe or on ice. Returning in the month of February I proceeded with the traverse work, and finally, after the third attempt, completed the same in the month of April.

The survey throughout was made with the transit. Particular attention was given to the proper cutting of the line, also to the blazing, posting and chaining of same. Durable posts were made, carved in the regular way with a scribe, and securely planted. Iron posts were planted according to instructions, with one exception, the iron post instructed to be planted on the west boundary of Muskego, at the intersection of concession line 6 and 7, was inadvertently placed at the south-west angle of lot 24, concession 7.

PHYSICAL FEATURES.

The general nature of the township is rolling. Very few large hills exist. The swamps are very numerous, being chiefly spruce and cedar swamps with dry tamarac. These swamps are underlaid with boulders, which in various places protrude to the surface.

DRAINAGE.

The township is drained by the Scorch river, formerly called the Sturgeon river, and by the Muskego river—the Scorch river and lake draining the greater part of the township. Slate Rock lake, Singed-tree lake, and Winter Spawning lake, all drain to the Scorch river. This river, when improvements are made at the narrows in lot 16, concession 4, by removing of boulders and widening the channel, will be of great benefit in lumbering operations for the conveyance of lumber to the railway.

TIMBER.

The township is heavily timbered with spruce, balsam, birch, poplar and jack pine, with scattering white pine. Cedar is found along the banks of the rivers and lakes and in the swamps. The timber is most suitable for pulpwood and railway ties.

The windfall of timber is general throughout the township, which, in my opinion, is caused from the light overburden of soil.

SOIL.

The soil is principally of a sandy nature with little clay or loam; boulders of rock are predominant throughout the soil, and for which reason I would consider about fifty per cent. of the township suitable for agricultural purposes.

MINERALS.

The rock formation chiefly consists of keewatin and granite, the keewatin rock being composed of greenstone and schist. In this is found quartz veins, but no mineral of economic value was found.

GAME AND FISH.

Game is most plentiful, consisting of moose, bear, wolves, fox, mink, beaver and martin.

Fish is also plentiful, chiefly pike and pickerel.

The magnetic variation is constant, being six degrees and thirty minutes west of astronomical north.

I submit with this report, general plan, timber plan, field notes and traverse plans.

All of which is respectfully submitted.

I have the honour to be, Sir,

Your obedient servant,

(Signed) R. S. CODE,

Ontario Land Surveyor.

The Honourable, the Minister of Lands, Forests and Mines,
Toronto, Ontario.

Appendix No. 23.

SURVEY OF OUTLINES OF TOWNSHIPS, DISTRICT OF ALGOMA.

PETERBOROUGH, ONT., March 15th, 1917.

SIR,—I have the honour to submit the following report on the survey of certain township outlines in the district of Algoma, made by me under instructions from

your Department, dated September 5th, 1916. I also beg to submit herewith the plans, field notes and account in connection with this survey, all of which I trust will be found complete and satisfactory.

I commenced the survey at the north-west angle of the township of Woolrich, from which point I ran west astronomically four miles along the south boundaries of the townships of Farquhar and Haig. I then proceeded to the south-west angle of the township of Dowsley, from which point I ran the north boundary of the township of Haig west astronomically nine miles. I then returned to the south-west angle of the township of Dowsley and ran the east boundary of the township of Haig south astronomically nine miles six chains and twenty links intersecting my base line at a point three miles thirteen chains and thirteen links west of the north-west angle of the township of Woolrich. I then ran the south boundary of the township of Haig west astronomically nine miles, and from this point I ran the line between the townships of Haig and Wicksteed north astronomically nine miles four chains and two links, intersecting my base line at a point eight miles seventy-seven chains and twelve links west of the south-west angle of the township of Dowsley. I then ran the north boundary of the township of Wicksteed west astronomically nine miles. I then returned to the south-west angle of the township of Haig and ran the south boundary of the township of Wicksteed west astronomically nine miles, and from this latter point I ran the west boundary of the township of Wicksteed north astronomically nine miles five chains and eight links, intersecting my base line at a point eight miles seventy-seven chains and twenty-nine links west of the north-west angle of the township of Haig.

Substantial posts of the dimensions called for and made of the most durable wood in the locality and properly marked were planted at every mile on the base lines and at every one and one-half miles on the meridian lines, the position of each of these posts being verified by two bearing trees.

Iron posts, properly marked, were also planted at the several corners of the townships and at the end of every third mile along the lines.

Observations on Polaris at or near elongation were taken at every opportunity that presented itself, the work closing almost theoretically correct.

Along that part of the south boundary of the township of Farquhar surveyed by me, and along the whole of the south boundary of the township of Haig, and for the first two miles of the south boundary of the township of Wicksteed, the country is of a gently undulating character, covered chiefly with spruce and banksian pine up to ten inches in diameter; the soil, consisting, generally speaking, of a black loam ten to fourteen inches in depth with clay subsoil; this line crosses a number of lakes and rivers; it also crosses the Canadian Northern Railway twice and passes along five links north of the station section house at Shekak.

From the second to the ninth mile along the south boundary of the township of Wicksteed the country is of a rolling character heavily timbered with spruce up to eighteen inches in diameter, banksian pine up to sixteen inches, white birch and poplar to twelve inches. Along this line there are a few outcroppings of rock and the soil is light and sandy. The line between the townships of Haig and Farquhar runs through an undulating country timbered with spruce, banksian pine, white birch and poplar up to eight inches in diameter on the uplands, with spruce and dead tamarac swamps on the lowlands.

Along this line the soil is good black loam from ten to fourteen inches in depth and free from stone.

The country along the line between the townships of Haig and Wicksteed for the first two miles is low and swampy, and from this point up to the seven and one-half mile post the country is rolling and heavily timbered with spruce up to eighteen inches, banksian pine to sixteen inches, poplar and white birch up to twelve inches with spruce and dead tamarac swamps in the valleys. The soil is a sandy clay loam with a few outcroppings of rock.

From the seven and one-half mile post to the end the line runs through an old brûlé interspersed with swamps.

The north boundary of the township of Haig and the north and west boundaries of the township of Wicksteed run, for the most part, through a very old brûlé country covered with poplar, white birch, and banksian pine, interspersed with spruce and dead tamarac swamps; the soil in some places being fairly good and in other places light and sandy. There are also a few outcroppings of rock along these lines.

From the age of the timber now on the ground and other evidences there is no doubt this country was overrun by a very destructive fire about the year 1850, and at many places this fire not only destroyed the timber, but also wiped away the humus of the soil.

There are numerous lakes and quite a few large streams and rivers traverse these townships, but no water power of any note. The water of all these lakes and rivers is clear and wholesome.

The rock in this locality is of the Huronian formation, and bears no evidence of being mineralized. The Canadian Northern Railway runs through these townships. It has a first-class road-bed, is well ironed and with long tangents, and very easy grades and curves give every evidence of being carefully located and permanently constructed.

Hornepayne, a divisional point, is located in the township of Wicksteed and already forms the nucleus of a thriving settlement; here there are all told about fifty buildings and many more under construction.

I also understand that the number of children of school age is twenty-three, and that the proper steps have already been initiated to open a school.

During the greater part of the work the snow was very deep and there being no frost in the ground the travelling was very bad, and I did not explore the interior of these townships as much as I would have liked to.

From what I have seen I would consider from fifty-five to sixty per cent. of the area of these townships suitable for settlement.

The average magnetic variation I found to be four degrees and forty-five minutes west of north.

Moose and fur-bearing animals, under the present efficient administration of the Provincial game laws, are, I believe, increasing in this district.

On the timber plan submitted herewith a general idea of the location of the areas of merchantable timber may be had, but owing to the wretched travelling while on the ground it would be difficult for me to delimit them more closely.

I have the honour to be, Sir,

Your obedient servant,

(Signed) J. W. FITZGERALD,
Ontario Land Surveyor.

The Honourable, the Minister of Lands, Forests and Mines,
Toronto, Ontario.

Appendix No. 24.

SURVEY OF PART OF THE TOWNSHIP OF KEITH, IN THE DISTRICT OF SUDBURY.

TORONTO, October 12th, 1917.

SIR,—In accordance with instructions received from your Department, dated July 31st, 1916, I have the honour to report the following survey of the north part of Keith township in the district of Sudbury.

This survey was commenced on October 11th, 1916, immediately after completion of cutting of line of the township of Muskego, adjoining on the north. The work was continued until October 26th, 1916, when, owing to extremely unfavourable weather, we were compelled to temporarily cease. That portion lying east of the line between lots 12 and 13 was completed by that date with the exception of the traverse work.

In February I returned and traversed Winter-Spawning and Slate-Rock lakes. Returning again in the month of March we were obliged to leave off in April as the extreme depth of snow rendered it practically impossible to proceed with the cutting and posting of line in a satisfactory manner.

On August 1st, 1917, I proceeded with the survey, completing same on September 11th, 1917. The work was carried out in every particular in accordance with instructions. The lines were well cut out and blazed in proper manner; durable posts were firmly planted in the ground and carved by means of a scribe. Iron posts were planted in accordance with instructions and their location shown in the field notes.

The east part of the township is generally rolling with sandy soil. The centre and western part being low-lying, consisting principally of cedar and spruce swamp, the water in these swamps being held back almost entirely by the many dams constructed by beavers. By removing dams this land would be well drained and would be found quite suitable for agricultural purposes.

The township is drained on the east side by Groundhog river, on the north by Winter-Spawning and Slake-Rock lakes, on the west by Muskego creek and Muskego lake. The water in these lakes is very clear. No rapids or swift water were found except on the Groundhog river, where at a point twelve chains south-west of where said river leaves the north-east part of the township a drop of two and one-half feet occurs. Very little water power could be developed at this point as the estimate of flow was found to be only fifty cubic feet per second. Muskego creek at the south-west corner is a small, narrow, crooked creek, being twenty-five to fifty-five links in width, where concession line 6 and 7 crosses.

With the exception of the south-east corner where fire has passed through and left little standing, the township is heavily timbered. The timber is chiefly spruce, balsam, birch, poplar and jack pine. Cedar and spruce are found more plentiful in the swamps. The timber would be suitable for pulp wood, railway ties, and lumber. The soil throughout is sandy, very little clay being found, and could be utilized for agricultural purposes.

We found very few outcrops of rock and no mineral whatever. Several outcrops occur along the line of the Canadian Northern Railway, the formation of which was schist and greenstone with an occasional showing of quartz veins.

Moose, bear, wolves, fox, mink, beaver and martin are very plentiful. Pike and pickerel were caught in the rivers and lakes.

The magnetic variation was constant, being six degrees thirty minutes west of astronomical north.

I deeply regret to report that during the prosecution of this work an accident occurred, wherein one of our party, Mr. Douglas G. Arkell, lost his life. A tree located about twenty-five feet off the line fell, striking Mr. Arkell on the head, while he was engaged cutting line. Medical attendance was at once summoned and every possible service rendered to relieve, assist and comfort the injured man. Mr. Arkell died on September 6th, while being taken to Sudbury hospital.

Herewith I enclose a general plan of survey, timber map, field notes and traverse plans, all of which is respectfully submitted.

I have the honour to be, Sir,

Your obedient servant,

(Signed) R. S. CODE,

Ontario Land Surveyor.

The Honourable, the Minister of Lands, Forests and Mines,
Toronto, Ontario.

Appendix No. 25.

SURVEY OF LINES BETWEEN LOTS EIGHT AND NINE, TOWNSHIP OF OGDEN AND
LOTS TWO AND THREE, TOWNSHIPS OF BRISTOL AND THORNLOE.

NEW LISKEARD, ONTARIO; December 28th, 1916.

SIR,—We beg to submit herewith our report in connection with the survey of the timber limit in the townships of Ogden, Bristol and Thornloe, the limits of which were outlined in your instructions to us dated October 23rd, 1916.

GENERAL.

The above survey was made during the early part of December, although there was already an average of about eighteen inches of snow on the ground. Conditions, however, were quite favourable for making the survey as the ground was not sufficiently frozen to interfere with the proper placing of posts.

As instructed by you and as shown by our field notes attached herewith, durable wood posts were properly marked and placed at points where those lines will be intersected by the concession lines when run at some future time. All other conditions laid down in your instructions were closely adhered to.

TIMBER.

Generally speaking wooden conditions are similar to those found at other points along the Mattagami river. For approximately half a mile either way from

the river the forest growth is very good, spruce, of course, predominating. In some places, particularly in concessions 5 and 6 on the west side of the river, there are some large poplars. Balsam is also mixed through the spruce, but not to the same extent as is usually the case.

There are also some small jack pine areas, the most important of which lie in between the Lost and Mattagami rivers. A portion of this has been overrun by fire. The burned area includes part of concessions 2 and 3, lying west of the Mattagami river. That part of it included within the limits as run by us will cover approximately one square mile.

All that portion of the limit south of the Lost river is untouched by fire and is mostly well timbered with jack pine and spruce up to about fourteen inches in diameter.

There is also a small jack pine area in the vicinity of mining claims P 7727-6778 and 6781 where there is considerable timber suitable for railroad ties.

Approximately an area of one and one-half square miles lying north and west of the Mattagami river, in concession 5, has been burnt over. This originally was spruce bush and is now of very little commercial value. Along the line between lots 2 and 3 and across concessions 3, 4, 5 and 6, in the township of Bristol, the timber is mostly very small spruce. The same applies along our line across concession 3, in the township of Ogden.

SOIL.

The entire area included by this limit will, in time, be well adaptable for agriculture. There are no rock exposures that we know of and the soil is for the most part a clay loam. That part now covered by jack pine is naturally of a more sandy nature, particularly lots 2 and 3, concession 2, in the township of Bristol.

Accompanying this report are our field notes, all of which we trust will meet with your satisfaction.

We have the honour to be, Sir,

Your obedient servants,

(Signed) SUTCLIFFE & NEELANDS,

Ontario Land Surveyors.

The Honourable, the Minister of Lands, Forests and Mines,
Toronto, Ontario.

Appendix No. 26.

SURVEY OF CERTAIN LINES IN THE TOWNSHIP OF NOTMAN, DISTRICT OF NIPISSING.

NORTH BAY, ONTARIO, December 30th, 1916.

SIR,—Herewith we beg to report the completion of the survey of those lines in the township of Notman, as we were instructed in your letter of the date November 25th, 1916.

In each case the remains of the original posts were found from which each of the above-mentioned lines were run north astronomically. We planted new cedar posts suitably scribed in the place of these originals. Posts were also planted at the north end of each of the three above-mentioned lines.

The lines were well cut out and blazed, and carefully chained with a 200-link chain, plumbed at each end.

Accompanying this report are the usual returns, consisting of plan, field notes, and the various affidavits, together with the account, all of which are respectfully submitted.

We have the honour to be, Sir,

Your obedient servants,

(Signed) MCAUSLAN & ANDERSON.

Ontario Land Surveyors.

The Honourable, the Minister of Lands, Forests and Mines,
Toronto, Ontario.

Appendix No. 27.

SURVEY OF THE TOWNSHIP OF SWEENEY, DISTRICT OF SUDBURY.

SUDBURY, ONT., June 28th, 1917.

SIR,—According to instructions dated May 31st, I proceeded on June 8th to the township of Sweeney to run a line dividing the township into east and west halves.

Owing to the fact that the three mile post on the north boundary was located in a marsh which is now flooded with four feet of water by beaver dams, it was necessary to check from the two mile post. The ten chain tally plugs for this mile were all located and one of the reference marks for the post found.

Owing to cloudy weather only one observation was secured.

The country in general is very rough and broken.

There is considerable white pine along the line as far as the three mile post. South of this point there is a great deal of jack pine, but it is very small. The spruce, also, is in general small.

The posts were marked according to instructions to serve when the township is eventually subdivided into lots.

I have the honour to be, Sir,

Your obedient servant,

(Signed) J. RICHARD GILL,

Ontario Land Surveyor.

The Honourable, the Minister of Lands, Forests and Mines,
Toronto, Ontario.

Appendix No. 28.

Honourable G. H. Ferguson, Minister of Lands, Forests and Mines, Toronto, Ontario:—

DEAR SIR,—I beg to report as follows with regard to advances made to settlers in Northern Ontario:—

Number of loans made to date	1,238
Amount loaned	\$383,968 57
Total acreage covered by liens	190,087 ¼
“ “ under cultivation	21,303
“ “ ready for cultivation	4,525
“ “ improved land	25,828

The benefits derived from the ability of the settlers to secure loans of moderate amount on easy terms, are shown in the improved buildings, larger areas under cultivation, greater production of foodstuffs and increasing numbers of live stock owned by the settlers affected.

Generally speaking, the settlers appreciate the opportunity of securing funds on easy terms for the improvement of their holdings.

Yours truly,

F. DANE,

Settlers' Loan Commissioner.

Appendix No. 29.

ALGONQUIN PROVINCIAL PARK, November 1st, 1917.

HONOURABLE SIR,—I beg to hand you my report for the fiscal year ending October 31st, 1917.

Our staff has been composed of superintendent and thirty-three men, whose duty it has been to patrol the Park and see that the regulations are observed, to build shelter houses, cut portages and make such other improvements as may be required. During the trapping season the rangers have to be continually upon their sections to prevent poaching. Each two men have a section allotted to them which they are expected to patrol and keep in good order in every respect; this has all been done, and I am glad to report there have been no serious breaches of the law.

Conditions have been very much changed in the Park since the war. We miss the young men that used to come here for the fishing and canoeing who are now overseas serving their country. They have been replaced by their parents and friends, who seek in this health-giving region strength to bear the terrible strain natural to those whose dear ones are in such peril. As a health resort the Park is yearly becoming more appreciated, and we have a great many visitors whose sole desire is to breathe our pure air and wander about in the splendid woods of our Park. Many returned men, too, have come here to build up, and have been greatly benefitted by doing so.

The work of cleaning up along the railway has been continued, although we found it difficult to get sufficient men. However, it has been completed with the exception of two or three unimportant patches where fire had already run and destroyed the timber years ago. The piles also have been successfully burned and no damage done. This means a very great protection from fire from locomotives, and adds a great deal to the appearance of the Park when travelling through by train. One half of the expense of this work has been borne by the Grand Trunk Railway.

I am glad to report a splendid year so far as forest fires are concerned. We had none of any importance and any that did start were early placed under control. The Grand Trunk fire tank has been stationed here all season, and it is a splendid thing where a fire along the track is taken in time. Game of all kinds is very abundant and is increasing rapidly.



A view in the hardwood forests in the Algonquin Park.

We took out the regular quantity of furs, which were sold in Toronto, bringing \$4,574.10. I hope next year to have a much larger number. The sale of live animals has fallen off since the war, but will, I hope, revive again when it is over. We shipped three live beaver to Lanark as directed for re-stocking the waste lands there, and I have a report to the effect that they have done well and have established themselves in their new quarters. Deer are very abundant, and I have recommended that a large number be taken out and placed on the market to help out the food supply. This, I hope, you will decide to do, as hundreds could be taken along the railways at small cost and still leave an abundant supply. I am confident, also, that from some of our large lakes a great quantity of fish could be taken if necessary.

I would respectfully draw your attention to the wood supply that could be taken from the Park, especially from the burnt area, and would recommend some steps being taken, not only to turn this into fuel for the relief of the poor in our cities, but also that something be done to derive a revenue from the vast quantity

of matured hardwood on the limits acquired by your Department. It would seem a great pity to allow this to over-mature and decay.

Nine of our men are stationed along the Canadian Northern Railway which runs through almost the entire length of the Park on the north, and opens up a splendid section which, after the war, will be much sought by the angler.

We have built a new shelter at Eagle lake, and improved and repaired several of the others. Several new leases have been granted on Cache lake and a number of good cottages erected. I think we had more people in the Park than in any other year, although not nearly so many angling licenses were sold. The boys' and girls' schools were well filled, the girls' camp being composed of some seventy people including teachers and help; the boys' schools of about forty each.

We have found our telephone system a decided convenience and a great help in cases of fire. The revenue from it is small, but had we connection with Toronto and other points as we should have, there would be a much larger revenue. At present we are confined to Orillia to the south and North Bay to the north.

We have collected and sent to the Department the following sums:

For rents	\$510 00
“ licenses	850 00
“ live beaver	30 00
“ furs	99 00
“ telephone	46 59
Making a total of	\$1,535 59

This does not, of course, include revenue from furs or any moneys paid at the Department in Toronto.

Trusting the coming year may bring peace and prosperity to our country.

I have the honour to be, Sir,

Your obedient servant,

G. W. BARTLETT.

*Honourable G. H. Ferguson, Minister of Lands, Forests and Mines,
Toronto, Ontario.*

Appendix No. 30.

QUETICO PROVINCIAL PARK.

KAWENE P.O., QNT., October 31st, 1917.

To the Honourable, the Minister of Lands, Forests and Mines, Toronto, Ontario:—

SIR,—I beg to submit my report for the fiscal year ending October 31st, 1917, on the Quetico Provincial Park, of which I had the honour of being appointed Superintendent in February, 1917.

Before the ice breaking on Eva lake I secured timber and built a shelter hut 14 x 18 sided, at Kawene station, also a small stable for our horses there. This was done with very little outlay as the lumber, windows, etc., were secured from an old shack out of repair at Eva lake.

This hut has proved a great convenience in getting supplies, etc., it being convenient to the railway station. It also served as shelter for men while putting in a telephone line and also one fire ranger on the railway track during the season. About May 1st we cut a telephone line from Kawene to headquarters, but owing to lack of material as well as the dry season we did not put in the line until later. The line is about twelve miles long, running south from Kawene to the south-westerly corner of Eva lake, thence east to French lake. The wire (insulated) is laid under the C. N. R. tracks in galvanized iron piping with boards above and below to protect it. Permission was granted by C. N. R. authorities to cross their line and also to install the telephone in the station. The line was built and the phones installed by our own staff, and I am pleased to say has not cost us any repairs whatever in its four months' use. I had a saddle trail cut along the line which will be convenient in repairing the line as well as in getting out to the station in the spring and fall seasons when the water and winter routes are closed. Shelter huts were erected on Kinippi lake, and on Lake La Croix this season. Owing to a heavy hail storm in August the roofs on huts on Eden Island, east arm of Quetico and Burntside lake were destroyed, but have since been repaired. Small additions for cooking purposes have been added to the huts on Beaver House lake and Darby's island on Basswood lake. I had built on French lake a boathouse for the shelter of gasoline boat. It is protected from "ice shoves" by a pier heavily loaded with rock and serves for protection for boat for both winter and summer. I also built one on the south side of Eva lake in the same manner for the out board motor there.

Owing to the exceptionally low water this season many new portages had to be cut on the main canoe routes and when not otherwise engaged the rangers are employed cutting inland trails. I regret to say we had considerable forest fire on the south-west end of the Park which destroyed some timber, all of which I understand will be cut this season thus lessening the loss. Considering the exceptionally dry spring season and the forest fires all around us at that time, I consider that we were very fortunate on the whole. Lumbering operations are very brisk on the south-west end of the Park, but are carefully watched by the rangers. I had erected an observation tower about three-quarters of a mile from headquarters. This tower is on a very high hill and is fifty feet in height, thus giving a good view for many miles. Preparations were made for building many others next season. Game and fur are increasing rapidly, particularly moose, red deer and beaver. Partridges are also becoming more numerous. The weather during the present month has been the roughest I ever experienced at this time of year, causing great difficulty in getting in supplies.

I have the honour to be, Sir,

Your obedient servant,

HUGH McDONALD.

Superintendent Quetico Park.

Appendix No. 31.

COLONIZATION AND IMMIGRATION.

To the Honourable G. H. Ferguson, Minister of Lands, Forests and Mines, Toronto, Ontario:—

SIR,—I have the honour to submit the following report of the Colonization and Immigration Branch for the year ending October 31st, 1917:

The following figures indicate the work of the Bureau of Colonization for that period:



School Children—Rainy River Valley.

Number of farm labourers placed	713	
Northern Ontario calendars circulated	26,000	
Northern Ontario booklet, "A New Land Near-by," circulated	25,000	
"Ontario" handbook, circulated	5,000	
"Opportunities in Ontario" (Heaton's), circulated	20,000	
"Farming Opportunities in Ontario" (Farm Property Values), circulated.....	2,000	
Maps, circulated	5,000	
Railway certificates to settlers going to Northern Ontario—Adults	1,583	
Children	141	
		1,724
Number of letters received		7,244
Number of letters sent out		7,680

The farm labourers secured from the United States were generally satisfactory. Our agents had special instructions to be judicious in their selection. Had we not been careful, had we been willing to accept all applicants, we could have got two or three times as many. As it was, the number obtained exceeded the previous year by nearly a hundred.

There were 728 people who took up land in Northern Ontario last year as compared with 641 the year before. This is wonderful, considering the retarding influences of the war, especially its complete prevention of emigration from the other side of the Atlantic Ocean.

EXHIBIT AT THE CANADIAN NATIONAL EXHIBITION, TORONTO.

"The old log cabin has for many years been a landmark for exhibition visitors, but to the modern young men the new log cabin of the Northern Ontario Colonization Department will provide a greater amount of interest. The building itself is of timbers from this north country, hewn around Timiskaming, and within is a choice exhibit of grain, grasses, vegetables and small fruits which are produced in the same district.

A continuous stream of interested visitors passed through the building while W. G. Nixon, head of the Government Demonstration Farm at Monteith, dispensed information on the soil and possibilities of Northern Ontario in general.



International Highway—Port Arthur to Duluth.

Here is a country, he said, during an interview, which is pretty well settled in the southern portion. In the most northerly part the old settlers who have made their money out of the rich timber lands are gradually giving place to the modern and ambitious young farmer. There is already a direct line of settlers straight up through this country as far as Cochrane, but with abundance of room for newcomers. The Government is offering every facility to prospective settlers in the shape of cheap transportation, which includes settlers' effects, and 160 acres of land are offered to each settler at a reasonable sum, subject to the usual conditions."

GROWN TO PERFECTION.

Practically all grains are grown to perfection in this district, fall and spring wheat, oats, barley and peas attaining a prolific crop, especially the latter. The soil is pretty uniform all through, a clay foundation, rich in carbonate of lime, with a top covering of muck, which varies from six inches to two feet, this combination providing the nitrogenous food, phosphates and potash, necessary.

A big source of the wealth of Northern Ontario lies in its timber, the whole region being heavily wooded with spruce, white balsam and pulpwood, the timbers fetching from \$6.50 to \$7.00 per cord loaded on the cars.

The climate of this region is not unlike that of Manitoba, oats ripening in fifty days, with a yield of sixty-five bushels per acre. During the three years from 1914 to 1916 seeding was commenced by the 5th of May.

A new Government demonstration farm will shortly be opened at New Liskeard, with up-to-date stock barns, and judging pavilion. The site comprises 230 acres, 60 or 70 already fit for cultivation, the rest will be cleared. An agricultural high school will be opened on the grounds.

As far north as Charlton a Government creamery has been in operation, which makes up the farmer's cream at a cost not to exceed three and one-half cents per pound. At the Monteith Demonstration Farm, 105 miles north of New Liskeard on the line of the T. & N. O. Railway, the Government have 800 acres of land, part of which is under cultivation.



Sheep-raising, near Englehart, Northern Ontario.

PURPOSE OF DEMONSTRATION FARMS.

The purpose of these farms is to produce pure-bred stock for distribution among settlers, and to demonstrate and distribute the best grains. The Matheson demonstration plant totals forty acres under oats and potatoes. Here O.A.C. No. 3 oats are grown for distribution among settlers at a nominal price. Yet another farm is at Hearst, and it is possible Cochrane may have one in the near future.

Government offices are open at New Liskeard and Monteith in Timiskaming district; at Gore Bay, Manitoulin; at Sault Ste. Marie in Algoma; at Sudbury; at Port Arthur and Fort William in Thunder Bay district; at Emo, Rainy River district, and Kenora.

The purpose of these offices is to help out the farmer in every possible way, and a great work is done by the district representatives in charge.

"Settlers who were burnt out last year got 100 pounds of grass seed free, sufficient to cover 10 acres, and the Government loan system will enable them to purchase other seed required.

Farmers in the lower district, from New Liskeard to Englehart and Charlton, have made a success of it, and there are just as abundant opportunities in the northern portion.

Climatic conditions, changing with the clearing of the country, redound to the benefit of the settler, and there is no reason why farmers as far as Cochrane cannot be equally successful."—*Toronto World*.



Stock Farm, North of New Liskeard, Timiskaming.

EXHIBIT AT THE CENTRAL CANADA EXHIBITION, OTTAWA.

"One of the new features at the Exhibition this year that is attracting much favourable comment is the Northern Ontario Settler's Home. Situated near Howick Hall on the left of the entrance this piece of enterprise by the Department of Lands, Forests and Mines, at Toronto, is part of a campaign to bring the advantages of Northern Ontario before the people in an effective and vigorous manner. The home is tastefully laid out with two large fireplaces to insure comfort in winter, and it is one of the charms of these log buildings that, while exceedingly comfortable in the cold weather, they protect against the intense heat of summer.

Each in possession of a corner of the living room is a representative from one of the districts of Northern Ontario, proud in friendly competition with his rivals in telling of what has been achieved in agricultural production.

Kenora, the farthest west and north of the four main districts, despite the handicap of a late season, has a number of shocks of grain giving evidence of pro-

fitable cultivation. Kenora district is famous for its clover seed. Staple vegetables are brought to maturity out of doors, and on account of the plenitude of clover and wild grasses the prospects for developing an extensive bee industry are good. Dairying is starting; there is one cheese factory and two creameries that have been in successful operation for some time. The Rainy River district, which adjoins Kenora to the east, has long been known as a land of promise. This year, in addition to the cultivation of grains and vegetables, the farmers have made a success of seed potatoes and helped to supply the shortage in the older parts of the Province. In Algoma district an ambitious attempt has been made to establish a fruit district, and the results that have been secured warrant continued exploitation of the hardy varieties in that climate. The nursery at St. Joe has been doing effective experimental work. The Timiskaming district, while not the oldest, is probably the best known on account of its general farming possibilities. The experimental station at Monteith has done useful service in demonstrating to the settlers the correct farming methods and ascertaining the proper varieties of seed that should be used. In each of these districts under the encouragement of the Department the live stock industry is growing, and at Sudbury, where the industrial farm is located at Burwash, a large herd of beef cattle is being raised.

Although the building has been erected to demonstrate the agricultural possibilities of Northern Ontario, the Department has arranged an instructive display of mineral products. A sample of gold from the Croesus mine, valued at \$10,000, is shown in an iron safe, while silver, cobalt and metalliferous products from the Coniagas mine and other plants in the Cobalt district give some idea of the extent of the silver industry. The Canadian Copper Company has sent samples of the copper-nickel ore that is mined in the Sudbury region, with further samples taken at each stage of manufacture until the finished product is shown. Molybdenite, iron ores, lead, mica, talc, feldspar, and a score of other minerals and metalliferous products are seen and a corps of courteous assistants are always around to give information and explain the uses to which each is put. Mr. H. A. Macdonell, Director of Colonization, is in charge."—*Ottawa Citizen*.

Almost everyone that visited the Ottawa Exhibition passed through the log cabin and received a booklet with full information on Northern Ontario.

A NEW IMMIGRATION OFFICE.

Arrangements are now being made with the Dominion Immigration Department for space in the new Union Station, Toronto. We expect to be there within a year, and in that location to facilitate greatly the work of the Bureau of Colonization.

We do not prophesy, but we venture to express our belief that the war will be over before our next report is published, when emigration to Ontario will be resumed as usual, and splendid opportunities will be opened up to rich and poor, along the lines of farming, mining and other forms of prosperity.

I have the honour to be, Sir,

Your obedient servant,

H. A. MACDONELL,

Director of Colonization.

*Appendix No. 32.*REPORT ON THE CONSTRUCTION OF ROADS AND BRIDGES, UNDER THE PROVISIONS OF
THE NORTHERN AND NORTH-WESTERN ONTARIO DEVELOPMENT ACTS,
1912 AND 1915.

(During the Season of 1917.)

To the Honourable, the Minister of Lands, Forests and Mines, Ontario:—

SIR,—I have the honour to submit to you the report of the work done under my supervision in the districts of Temiskaming and the northern part of Algoma, under the provisions of the Northern and North-western Ontario Development Acts, 1912 and 1915, from June 1st, 1917, until October 31st of that year.

Very little was done along the line of cutting out new roads except where it appeared imperative and no new bridges were built that could possibly be got along without. My efforts were confined to the building of roads and bridges that had been commenced and to the repair of others that had become well-nigh impassable.

It appears to me that it would be wise to take immediate steps to encourage the organizing of some of the townships in Temiskaming so that the Government might be relieved to some extent of the maintenance of many of these roads. Road machinery purchased and placed in the hands of organized townships, in my opinion, often serves better than making grants of money.

The following gives in detail the work accomplished:—

NEW LISKEARD, HAILEYBURY AND COBALT DISTRICT.

Haileybury and New Liskeard Road:

This road lies entirely in the Township of Bucke. This township is not able, nor has it any particular interest in maintaining this road, which forms a link in the highway between the farmers and settlers in the townships lying north, east and west of the Town of New Liskeard and the markets of Cobalt. The length of this road is 4 miles; it was graded, ditched and gravelled, several culverts were built and others repaired. The old location was poor and several diversions had to be made and one large hill greatly reduced.

North Cobalt and Lorrain Road:

This road was constructed several years ago and it had fallen into disrepair; new culverts required to be built and general repairing, ditching and gravelling was carried on for a distance of from 14 to 15 miles.

ENGLEHART DISTRICT.

In the Englehart district work was carried on in the surrounding townships as follows:

Township of Dack:

General repairing between Lots 2 and 3, across Concessions 1, 2 and 3. Building approaches to White River Bridge, Lot 8, Concession 5. Repairing road and culvert opposite Lot 3, Concession 4. Grading across Lots 1 and 2, between Concessions 5 and 6. Repairing boundary road between Dack and Evanturel, across Concession 6, and across Lots 9 and 10, between Concessions 4 and 5; across Conces-

sion 5, between Lots 8 and 9, and grading across Lots 9 and 10, between Concessions 4 and 5, and between Dack and Robillard, across Concessions 5 and 6. Grading across Concession 6, between Dack and Evanturel. Building 3 large culverts, cutting down 4 hills, ditching and grading across Lot 12, Concessions 3 and 4.

Township of Evanturel:

Building small bridge, Concession 1, building and renewing culverts, Concessions 2 and 3, all on the line between Evanturel and Ingram. Removing old bridge and building a new one over White River, Lot 7, Concession 6. Replacing old bridge with culvert and fill between Lots 6 and 7, Concession 6. Repairing wash-out opposite Lot 6, boundary of Marter and Evanturel. Building large culvert opposite Lot 4; a culvert opposite Lot 6 and grading and ditching road across Lots 4 and 5. Repairing approaches of new bridge over White River opposite Lot 6, all being on the line between Concessions 5 and 6. Repairing wash-out between Lots 11 and 12, Concession 5. Stumping and ditching across Lots 1 and 2, between Concessions 1 and 2, and ploughing road for grader. Grading and repairing culverts across Lot 12, Concessions 5 and 6, and across Concession 5, between Lots 11 and 12.

Township of Ingram:

Building culvert, ditching and grading between Lots 2 and 3, Concession 2. Chopping, stumping and ditching across Lots 1 and 2, Concession 3.

Township of James:

Building culverts, ploughing and grading across Concessions 2, 3, and 4, and stumping $\frac{1}{4}$ mile across Lot 4, Concession 4. Repairing culverts and road from Elk Lake to Moose Horn Mine.

Township of Marter:

Renewing culvert coverings and repairing the road across Lot 5, Concession 4. Grading across Concession 1, between Marter and Chamberlain. Building and repairing road across Lots 3 and 4, Concession 4.

Township of Pacaud:

Clearing right-of-way, stumping, grubbing and ditching, building culverts and grading where possible across Lot 12, Concession 2. Repairing road across Pacaud and Marquis, across Concessions 1 and 2. Removing old bridge and building new structure over Ada Creek, between Lots 4 and 5, Concession 1. Repairing road and renewing culverts between Chamberlain and Pacaud, across Lots 9 to 12, inclusive. Chopping across Lot 5, between Concessions 1 and 2. Stumping, logging and clearing right-of-way, building culverts and ditching between Lots 4 and 5, Concession 2, also across Lot 1 to the railway, between Concessions 2 and 3, and building small bridge with approaches.

Township of Robillard:

Building new culverts and cutting down hills on line between Savard and Robillard, across Lot 12 and on the line between Truax and Robillard, across Concession 1. Repairing Charlton and Elk Lake Road, across Lots 5 to 11, inclusive, in the 2nd and 3rd Concessions. Stumping, logging and laying corduroy, building new culverts, hill cutting, ditching and grading across Lots 4, 5 and 6, between Concessions 5 and 6. Ditching, building new culverts and building up road in low places across Concession 5, between Lots 3 and 4. Ditching and grading across Lot 1, between Concessions 3 and 4. Grading across Lot 1, between Concessions 3 and 4. Building new bridge and removing old structure over Sundae Creek, Lots 4 and 5, boundary Robillard and Bryce.

Township of Savard:

Repairing road, renewing culverts and gravelling in places across Concessions 1 to 6, inclusive, and grading across Concessions 5 and 6 on boundary between Chamberlain and Savard. General repairing of roads and culverts and preparing for grader, Lots 1 to 4, inclusive; building road across Lots 5 to 9, inclusive, all on line between Marquis and Savard. Grading across Lots 1 to 4, between Concessions 4 and 5, and across Concessions 5 and 6, between Lots 4 and 5. Completing road between Townships of Savard and Sharpe, across Concessions 1 and 2.

Township of Sharpe:

Building new culverts between Townships of Sharpe and Truax opposite Lot 1. Completing road across Lots 1 and 2 and stumping partly across Lot 2, between Concessions 2 and 3.

Township of Tudhope:

Stumping across Lots 7, 8 and 9, between Concessions 1 and 2.

MATHESON DISTRICT.

In the Matheson District, owing to the fire the previous year having destroyed a great number of wooden culverts, sections of corduroy and portions of the roads, which consist wholly of black muck, there being no clay available, a great deal of time was occupied and money expended in making the roads thus damaged again passable.

This section of the country is opening up quite rapidly. There is no better land to be had anywhere. Large portions of it have been entirely denuded of timber and with very little work would be ready for the plough. After the war there is no doubt the advance in this locality will be very rapid.

The work performed under my supervision was as follows:—

Township of Beatty:

Regraded one mile of gravel road across Lots 12 and 13, on the line between Beatty and Hislop. Reduced hill, regraded 4 miles and built 3 culverts on line between Beatty and Carr. Built 4 culverts on the line between Concessions 2 and 3 and reduced a hill on Lot 11. Built 4 culverts on the line between Concessions 3 and 4 and reduced hill on Lot 5.

Township of Bond:

Completed approaches to bridge on the line between Stock and Bond Townships; stumped and grubbed 30 chains between Lots 2 and 3, Concession 8; ditched 2 miles and 20 chains between Lots 2 and 3; also built 3 culverts.

Township of Bowman:

Regraded 3 miles across Concessions 4, 5, and 6; gravelled 5 chains on 6th Concession and built 4 culverts; regraded 2 miles of gravel across Lots 1 to 4, inclusive, and 4 miles across Lots 5 to 12, inclusive, on the line between the Townships of Carr and Bowman; built 1 culvert, repaired 2 others and made a fill of 200 cu. yds. on the line between Hislop and Bowman; built 2 culverts and repaired 4 others across Concessions 5 and 6 on the Trunk Road through Lot 1; built 3 bridges, each of 20-foot span, constructed 3 culverts and graded $\frac{1}{4}$ of a mile on the line between Concessions 5 and 6, across Lot 12; moved 600 cu. yds. of earth and built 1 culvert on the line between Lots 6 and 7; regraded $1\frac{1}{2}$ miles and improved 20 chains of muskeg road across Concession 3. Currie and Bowman Townships: Regraded 2 miles and built a culvert on the line between Lots 6 and 7, Matheson to Wah Tay Beg; laid 20 chains of corduroy between Concessions 4 and 5; improved road between Lots 2 and 3, across Concessions 4 and 5, and part of 6.

Township of Carr:

Graded 2 miles across Lots 1, 2, and 3, between the Townships of Taylor and Carr; built 4 culverts, regraded $3\frac{1}{2}$ miles and removed 2,000 cu. yds. of earth between Lots 4 and 5; built 4 culverts, regraded 1 mile and moved 200 cu. yds. of earth on the line between Concessions 2 and 3; built 11 culverts and 1 bridge and regraded 2 miles between Lots 2 and 3, through Concessions 1 to 4, inclusive; regraded 4 chains on the line between Concessions 3 and 4; regraded 2 miles and built 3 culverts on the line between Taylor and Carr Townships; regraded $\frac{1}{2}$ mile between Concessions 3 and 4 and built 4 culverts.

Township of Clergue:

Stumped and grubbed $1\frac{1}{2}$ miles, built 5 culverts, removed 3,000 cu. yds. of earth and gravelled 2 miles between Concessions 1 and 2; built bridge on the line between Clergue and Walker Townships; reduced a hill and widened road on Lot 12, Concession 2; built 4 culverts and repaired Trunk Road Monteith to Kelso.

Township of Currie:

Graded $\frac{1}{2}$ mile in Concession 5; repaired $1\frac{1}{2}$ miles of muskeg road across Lots 6, 7, and 8; built 3 culverts and replaced corduroy burned opposite Lots 9 and 11, between Taylor and Currie Townships. Stumped, grubbed and burned across Lots 1 and 2 and part of 3, between Concessions 4 and 5.

Township of Hislop:

Regraded $3\frac{1}{2}$ miles from Lots 5 to 11, inclusive, and built 7 culverts between Concessions 5 and 6.

Township of Playfair:

Chopped, stumped and graded $\frac{1}{2}$ mile, built 2 culverts and moved 200 cu. yds. of earth across Lot 5 on the Trunk Road from Matheson to Ramore; made a fill of 500 cu. yds. of earth approaches to Black River Bridge and 40 cu. yds. of rock for bridge piers; built 2 culverts and reduced hill across Lot 7; chopped, stumped and grubbed, and built 2 culverts opposite Lot 8, on the line between Concessions 5 and 6; chopped, stumped and grubbed between Lots 5 and 6, across Concession 5; stumped and grubbed across Lot 6, between Concessions 4 and 5.

Township of Stock:

Built 1 culvert, laid 2 chains of corduroy and graded $\frac{1}{2}$ mile across Lots 6 and 7, between Concessions 5 and 6.

Township of Taylor:

Regraded 18 chains across Lot 12, Concession 5; built 1 culvert and regraded 20 chains on the line between Concessions 5 and 6; regraded 10 miles on other roads throughout the township; repaired 2 bridges, built 2 culverts and dragged 2 miles across Concessions 3 and 4, between Lots 8 and 9; built 5 culverts on the line between Concessions 8 and 9, and through Concession 4; built 2 culverts on line between Concessions 4 and 5, across Lots 5 and 6; cut, cleared and burned across Lot 12, between Concessions 2 and 3.

COCHRANE DISTRICT.

In the Cochrane District, east and west along the T. C. Ry., and south along the T. & N. O. Ry., labour was exceedingly scarce and I found it very difficult to do all the work that required to be done. The prevailing high price for pulpwood and the presence of such industries as the Abitibi Power and Paper Company, who have a very large plant and who were enlarging it, the Mattagami Pulp and Paper Company, who were employing a large number of men, and the New Ontario Colonization Company, and various lumber companies operating in the district, were all factors that resulted in the scarcity of labour mentioned.

The work performed in this district was as follows:—

Township of Brower:

Burning across Lot 6; cutting, burning and grubbing across part of Lot 5, and ditching across Lot 6 and part of Lot 5, all between Concessions 5 and 6. Cutting, stumping and grubbing between Lots 8 and 9, Concession 5. Grubbing, stumping, ditching and grading between Lots 2 and 3, across Concession 2. Built bridge over Brule Creek, and repaired culverts along the north boundary of the Township. Built bridge on Concession 2, between Lots 2 and 3.

Township of Calder:

Ditched between Lots 12 and 13, across south part of Concession 7, and between Concessions 8 and 9, across Lots 13 to 15, inclusive. Grubbing between Lots 18 and 19, across Concessions 5 and 6. Building culverts between Lots 16 and 17, across Concession 7, and between Concessions 6 and 7, across Lot 17. Cutting and burning between Concessions 6 and 7, across lots 23 to 25, inclusive. Grubbing and ditching between Concessions 4 and 5, across Lot 1. Grubbing between Concessions 8 and 9, across Lots 23 to 28, inclusive. Grubbing between Concessions 10 and 11, across Lot 16.

Township of Calvert:

Built 11 culverts, grubbed and stumped 80 chains, graded upwards of $\frac{1}{2}$ a mile, and generally repaired $\frac{1}{4}$ of a mile on the Trunk Road from Porquis Junction to Iroquois Falls. Cut and burned 25 chains and grubbed 40 chains between Lots 5 and 6, across the north part of Concession 1, and between Lots 4 and 5, across north part of Concession 2.

Township of Clergue:

Repaired road between Lots 6 and 7, across Concessions 2, 3 and 4. Built 1 bridge, 4 culverts, and repaired the road between Concessions 3 and 4, across Lots 5 to 8. Repaired 7 culverts on the Trunk Road from Kelso to Monteith.

Township of Clute:

Built 3 culverts and repaired 200 chains of road on the line between Clute and Leitch Townships, west of Lot 2, Clute Township. Graded 50 chains along the same line across Lots 6 and 7. Built 1 bridge and 2 culverts between Concessions 2 and 3, opposite Lots 3 and 4. Ditching between Concessions 8 and 9, across Lots 13 and 14, and 24 to 28, inclusive. Ditching between Concessions 10 and 11, across Lots 27 and 28. Grubbing and ditching along the boundary of Clute and Calder, across Concessions 10, 11 and 12. Ditching between Concessions 8 and 9, across Lots 16 and 17. Grubbing and ditching between Concessions 8 and 9, across Lot 18. Ditching between Concessions 8 and 9, across parts of Lots 13 and 14.

Township of Fournier:

Grubbing and ditching between Concessions 5 and 6, across Lots 1 and 2.

Township of Fox:

Ditching between Concessions 3 and 4, opposite Lots 11 and 12.

Township of German:

Built 1 culvert, grubbed and stumped 10 chains, and repaired 26 chains of road between Lots 10 and 11, and 11 and 12, Concession 6, and on the trunk road across Lots 10, 11 and 12, Concession 6.

Township of Glackmeyer:

Built 4 culverts, repaired 7 culverts, and repaired 280 chains of road between Concessions 6 and 7, across Lots 13 to 22. Repaired 1 bridge between Lots 12 and 13, Concession 6. Repaired 140 chains between Lots 18 and 19, across Concessions 1, 2 and 3. Built 1 culvert and repaired 8 chains between Lots 18 and 19, Concession 3. Repaired 10 chains between Concessions 2 and 3, Lot 23, and graded 59 chains between Lots 24 and 25, Concession 2. Built 2 culverts and repaired 10 chains on the boundary between Glackmeyer and Clute, across part of Concessions 10 and 11. Built 2 bridges, Concessions 6 and 7, Lots 12 and 13. Repaired 1 bridge between Lots 12 and 13, Concession 6, and on Lot 28, Concession 8. Laid 13 chains of corduroy, stumped and grubbed 13 chains on boundary between Glackmeyer and Blount, Lots 15 to 18, inclusive.

Township of Kennedy:

Built 2 culverts, stumped and grubbed 30 chains, and generally repaired 120 chains on the south boundary of the township, across Lots 18 to 27, inclusive. Cut, burned and ditched 119 chains, stumped and grubbed 40 chains, and built 3 culverts between Lots 18 and 19, across Concessions 1 and 2. Ditched 20 chains between Concessions 2 and 3, opposite Lot 18. Built 1 bridge between Concessions 2 and 3, across Succor Creek, opposite Lot 17.

Township of Lamarche:

Built 6 culverts, removed 40 chains of corduroy, graded 80 chains and repaired 440 chains between Lots 10 and 11, across Concession 6, along the north boundary across Lots 9 to 12, inclusive, and along the west boundary, across Concessions 4 to 6, inclusive. Repaired 1 bridge, built 3 and repaired 7 culverts, and improved the road between Lots 8 and 9, across Concessions 3, 4, 5 and 6. Built 4 culverts, stumped and grubbed 25 chains, ditched 25 chains, and graded 480 chains across the north boundary of the township, from Lot 6, Lamarche, to Lot 7, Brower. Grubbed 20 chains, ditched 69 chains, between Lots 10 and 11, across Concessions 3 and 4. Cut 40 chains, burned 6½ chains, and grubbed 11 chains between Concessions 5 and 6, across Lot 4, and between Lots 4 and 5, across south part of Concession 6. Repaired 10 chains along boundary of Lamarche and Fournier, opposite Concession 12. Grubbed 79 chains and ditched 115 chains between Lots 2 and 3, across south part of Concession 4, and between Concessions 3 and 4, across Lots 4 and 5. Burned 12 chains and grubbed 13½ chains between Concessions 5 and 6, across part of Lot 4.

Township of Leitch:

Removed 30 chains of corduroy and graded 30 chains on boundary between Leitch and Blount, across Concessions 2 and 3; repaired 2 culverts and graded up to them on the same boundary opposite Concession 6. Ditched 16 chains on the Leitch and Blount boundary opposite Concession 1.

Township of McCart:

Cutting, burning and grubbing 100 chains between Concessions 4 and 5, across Lots 1 to 6, inclusive. Cutting and burning 39½ chains and grubbing 11 chains between Concessions 2 and 3, across Lot 2.

Township of Newmarket:

Cutting, burning and grubbing 18 chains between Concessions 3 and 4, across Lots 3 to 5, inclusive. Cutting 168 chains and burning 83 chains between Concessions 5 and 6, across Lots 3, 4 and 5, and between Lots 2 and 3, across Concession 6.

Township of Shackleton:

Cutting and burning 25 chains across Lot 23, Concession 12, and Lot 18, Concession 11. Cutting and burning 14½ chains across Lot 20, Concession 12. Cutting, burning and grubbing 26 chains across Lot 22, Concession 12. Cutting and burning 26 chains across Lots 15 and 16, Concession 11. Cutting 26 chains across Lot 14, Concession 11.

Township of O'Brien:

This township is being settled with the returned soldiers' and sailors' colony. About ½ a mile of railway grade for a siding was constructed, and ½ a mile of road, together with two bridges on the east side of the Kapuskasing River. Our saw-mill at Kapuskasing also operated for a short time at a cut that had been taken out the previous season. The lumber from this mill, as well as all the one inch and two inch lumber cut at Barber's Bay and Connaught, on the Porcupine Branch of the T. & N. O. Ry., was used in the buildings for the colony.

THE DISTRICT OF ALGOMA.

In the vicinity of Hearst, which is in the District of Algoma, for some reason or other, settlement has not been very rapid although the soil is excellent. The war probably has more to do with the lack of settlement than anything else. Labour was scarce here also, most of the settlers being engaged in the cutting of pulpwood. A considerable quantity of this pulpwood was shipped south over the Algoma Central Railway to the pulp mills at Sault Ste. Marie.

Work was done in the following townships in this district as follows:—

Township of Casgrain:

General repairs between Lots 24 and 25, Concession 3, and along Lots 24 to 27, inclusive, on line between Concessions 2 and 3. Repairing boundary line between Casgrain and Kendall, opposite Lots 17 and 18. Cutting and burning across Lots 14, 15 and 16, Concessions 6 and 7.

Township of Hanlan:

Cutting and burning on Trunk Road across Lots 26, 27 and 28, Concession 2. Cutting and burning on line between Lots 18 and 19, Concessions 1 and 2. Cutting and burning on Trunk Road across Lots 23, 24 and 25, Concession 2.

Township of Kendall:

Building culverts and grading between Lots 18 and 19, Concession 11. Repairing Trunk Road partly across Lots 14 and 15, Concession 10. Building culvert and grading on road across Lot 27, Concession 10. Building culvert, laying corduroy and making repairs on road between Lots 24 and 25, Concession 11.

PORCUPINE DISTRICT.

In this district most of the work was done in the Township of Mountjoy, which is the only township lying close to the Porcupine Mining Camp which has been opened for settlement. Much of the land in this township is of fine quality and there is a good market for everything produced, at the mines. The Mattagami River, which flows through this township, is crossed at the present time, during the summer months, by means of a ferry. This is not altogether a satisfactory arrangement, as there are certain seasons of the year, in spring and fall, when the river cannot be crossed, but, owing to this being a navigable stream a bridge would be an exceedingly expensive proposition, as it would have to be constructed to allow the passage of small steamboats up and down the river. As soon as conditions become normal, I would recommend that the construction of this bridge receive serious consideration.

The following is a description of the work performed in this district:

Township of Mountjoy:

On the road on the west side of the Mattagami River $3\frac{1}{4}$ miles were ditched, $11\frac{1}{2}$ miles gravelled, $\frac{3}{4}$ of a mile graded and 6 culverts built. On the south side of the Mattagami River there were graded 150 rods and gravelled 180 rods; a bridge was built across the Mountjoy Creek and $3\frac{3}{4}$ miles were cut, burned and grubbed. On the east side of the river there was 1 mile cut, burned and grubbed.

In addition to the above the Trunk Road from Golden City to the Mattagami River was surfaced with gravel $11\frac{1}{2}$ miles and with about 200 yards of rock. On the Hayden Road and on the road along the line between the Townships of Tisdale and Mountjoy, 2 miles of ditching, $13\frac{1}{4}$ miles of grading, $\frac{1}{2}$ a mile of gravelling and 300 feet of corduroying were done. A road-drag was also used upon this road for 12 miles and 11 culverts built.

This completes the list of the work performed under my supervision from June 1st to October 31st, 1917, under the provisions of the Northern and North-western Ontario Development Acts, of 1912 and 1915, all of which is respectfully submitted.

I have the honour to be, Sir,

Your obedient servant,

C. H. FULLERTON.

*Acting Director, Northern Development
Branch, District of Temiskaming.*

Dated at Toronto;

October 31st, 1917.

Appendix No. 33.

REPORT ON THE CONSTRUCTION OF ROADS AND BRIDGES, UNDER THE PROVISIONS OF THE NORTHERN AND NORTH-WESTERN ONTARIO DEVELOPMENT ACTS, 1912 AND 1915.

(During the Season of 1917.)

To the Honourable, the Minister of Lands, Forests and Mines:—

SIR,—I have the honour to submit the general report of the work done in the construction of roads and bridges, under the provisions of the Northern and North-western Ontario Development Acts, 1912 and 1915, during the season of 1917.

Operations were carried on over practically the same territory as in previous years, in the Districts of Rainy River, Kenora, Port Arthur and Fort William, Sault Ste. Marie, St. Joseph Island, Manitoulin Island, Algoma, Sudbury, Nipissing and Parry Sound, as far south as Sundridge, also in the Districts of Temiskaming in the vicinity of Englehart, Matheson and Cochrane, up to the last of May.

The work, during the early part of the season, was somewhat retarded owing to wet weather; the greater portion of the season, however, was very favourable for road construction, except that labour was difficult to procure and wages were exceptionally high; so, also, was the price of food supplies and material. The labourers employed on the work were chiefly settlers or those living in the districts. During the seeding, haying and harvesting seasons the work was postponed so as to give the settlers every opportunity of carrying on their farm work. Good results were obtained in most instances for the money expended, notwithstanding the high price of labour and supplies.

During the season, up to the 31st of October, \$485,493.33 was expended on construction and repairing of roads, and purchase of plant. Approximately 275 miles of road, new and old, was worked over during the season, of which 55 miles was entirely new road, the balance being roads cut out in previous years and graded, improved and surfaced with gravel or rock; 10 miles of road was re-surfaced with crushed rock and 125 miles surfaced with gravel; 6 bridges, over 100 feet in length, and 20 bridges, over 30 feet in length, were constructed; 281 corrugated iron culverts were put in place, and 200 wooden culverts constructed. Most of the old roads built in the last five years were gone over with road drags or small graders, and ditches cleaned out.

During the season the International Highway from Port Arthur and Fort William to Duluth was opened up for traffic. Fifty miles of this road is within the Province and has been constructed and almost completed within the last four years. It is now possible for the residents of Port Arthur and Fort William to reach the larger cities in Minnesota and Wisconsin by motor car.

Five years ago it was not possible to leave the Town of Fort Frances, in the Rainy River Valley, with a motor car; it is now possible to motor from Fort Frances to the City of Winnipeg, the distance having been made in seventeen hours.

The trunk road between North Bay and Sudbury, 80 miles, was also opened for through traffic in October, the distance having been covered in three and one-half hours.

The North Bay and Bracebridge trunk road has been practically completed to Sundridge, a distance of 50 miles, and from North Bay to Mattawa, 50 miles.

These roads, and numerous other trunk roads, are constantly requiring repairs, and the cost of maintenance in the future will be very considerable. The construction of roads into the different farming sections has greatly assisted the settlers in marketing their produce, and in many cases has increased the value of their lands from \$2.00 to \$5.00 per acre. The construction of new roads to the different mining camps, constructed within the last six years, has added greatly to the comfort of the miners and their families living and operating in the mining districts. Perhaps the greatest benefit in the building of these roads is the opportunities it has given to the children in the rural districts of reaching schools. The construction of the many trunk and other roads during the last six years has had much to do in the opening up of the new agricultural districts along the Temiskaming and Northern Ontario Railway, and its branches, and east and west from the Town of Cochrane along the Canadian Government Railways (Grand Trunk Pacific).

Attached hereto are statements of expenditures for the year ending October 31st, 1917, in the various districts, and a summary of expenditures for the last six years.

I have the honour to be, Sir,

Your obedient servant,

J. F. WHITSON,

Commissioner.

SUMMARY OF EXPENDITURE FOR THE SIX YEARS ENDING 31ST OCTOBER, 1917.

Description.	Year ending 31st Oct., 1912.		Year ending 31st Oct., 1913.		Year ending 31st Oct., 1914.		Year ending 31st Oct., 1915.		Year ending 31st Oct., 1916.		Year ending 31st Oct., 1917.		Total Expenditure.	
	\$	c.	\$	c.	\$	c.	\$	c.	\$	c.	\$	c.	\$	c.
Sec. 1 (a). Works and Improve- ments (Sewer at Hearst).....					2,100	00							2,100	00
Sec. 1 (b). Roads	193,082	80	1,081,172	28	791,443	08	582,914	80	513,533	75	485,493	33	3,647,640	04
Sec. 1 (d). Farms					9,035	11	8,075	68	10,125	53	18,181	52	45,417	84
Sec. 1 (e). Creamery, New Lis- keard											15,624	86	15,624	86
Sec. 3 Seed Grain.....							98,920	26	24,916	63	31	50	123,868	39
Returned Soldiers' and Sailors' Settlement Act, 1917.....											138,812	05	138,812	05
Clause 5 (Amending Act 1916)	193,082	80	1,081,172	28	802,578	19	689,910	74	548,575	91	658,143	26	3,973,463	18
Settlers Loan Account									26,370	98	370,731	99	397,102	97
	193,082	80	1,081,172	28	802,578	19	689,910	74	574,946	89	1,028,875	25	4,370,566	15

ARTHUR E D. BRUCE,
Secretary and Accountant.

STATEMENT OF EXPENDITURE UNDER NORTHERN & NORTH-WESTERN ONTARIO DEVELOPMENT ACTS, 1912 AND 1915.

(From 23rd May, 1912 to 31st October, 1917.)

District.	Expenditure to 31st October, 1916.	Expenditure year ending 31st October, 1917.
1. District of Nipissing and Parry Sound; North Bay to Mattawa; and east to Petawawa Military Camp, and Pembroke, and south of Callander to Powassan, Trout Creek, South River and Sundridge, and west from North Bay through Sturgeon Falls	\$324,183 64	\$27,184 11
2. District of Temiskaming, Haileybury, Englehart, Matheson, Charlton, Swastika, Elk Lake, Larder Lake..	487,987 94	91,254 55
3. District of Temiskaming, Cochrane, Porcupine, Iroquois Falls and Transcontinental Railway from Quebec boundary west, 125 miles to Groundhog ..	780,868 35	64,917 31
4. District of Sudbury, vicinity of the town of Sudbury and Mining District surrounding, and Sudbury-North Bay Road	234,733 96	105,602 54
5. District of Algoma, vicinity of Hearst, along Transcontinental and Algoma Central Railways	102,355 63	8,241 95
6. District of Algoma, on Sudbury and Sault Ste. Marie Trunk Road	230,766 51	34,544 37
7. District of Thunder Bay, tributary to Port Arthur and Fort William	416,813 79	40,204 96
8. District of Kenora, vicinity of Kenora and Keewatin..	169,080 27	15,024 26
9. District of Rainy River, in Rainy River Valley	327,832 16	60,594 27
10. Algonquin Provincial Park	14,391 27	347 24
11. Manitoulin Island	9,269 30	8,203 92
12. St. Joseph Island .....	.....	12,139 17
13. Experimental Farm Plots	27,236 32	18,181 52
14. Creamery, New Liskeard .....	.....	15,624 86
15. Seed Grain	123,836 89	31 50
16. General Administration Expenses	65,963 89	17,234 68
17. Soldiers' Settlement Account .....	.....	138,812 05
18. Settlers' Loan Account	26,370 98	370,731 99
	<hr/>	<hr/>
	\$3,341,690 90	\$1,028,875 25

ARTHUR E. D. BRUCE,
Secretary and Accountant.

STATEMENT OF EXPENDITURE, YEAR ENDING 31ST OCTOBER, 1917.

The Making of Roads:

Grigg, A., Deputy Minister, salary	\$400 00	
Whitson, J. F., Commissioner, salary	4,500 00	
Bruce, A. E. D., Secretary and Accountant, salary ..	2,933 00	
Beardall, F. G., Clerk (on active service) salary	1,461 70	
Dower, A. R., Clerk (on active service) salary	988 45	
Reid, A., Clerk (on active service) salary ..	693 84	
Lawer, W. L., Bookkeeper, salary	921 63	
Laidlaw, Miss B., Stenographer, salary	766 17	
Extra Clerks	4,569 89	
	<hr/>	\$17,234 68
Wages ..	\$270,835 83	
Contracts ..	39,435 70	
Supplies and equipment	157,987 12	
	<hr/>	468,258 65
		<hr/>
		\$485,493 33

Advancement of Settlement and Colonization:

Wages	\$4,174 95	
Land, New Liskeard Farm	10,500 00	
Supplies, stock and equipment	3,506 57	
		18,181 52

Creamery at New Liskeard:

Wages	\$787 69	
Contracts	8,853 00	
Supplies and equipment	5,984 17	
		15,624 86

Seed Grain:

Postage and expenses		\$31 50
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*Returned Soldiers' and Sailors' Land Settlement Act—**Montcith and Kapuskasing:*

W. G. Nixon, Superintendent, salary	\$743 57	
Wages	40,027 14	
Contracts	14,109 20	
Construction of training school, settlers' houses, dormitories, store and quarters, railway siding, mill, etc., equipment and supplies	83,932 14	
		138,812 05
		\$658,143 26

Settlers' Loan Department:

Dane, F., Commissioner, salary	\$5,000 00	
Kennedy, W. K. P., Accountant, salary	2,500 00	
Crawford, G., Stenographer, salary	682 33	
Taylor, N., Stenographer, salary	252 00	
Chester, Thos., Supervisor, salary	496 00	
		\$8,930 33
Net amount of loans issued	\$360,078 88	
Expenses	1,722 78	
		361,801 66
		370,731 99
		\$1,028,875 25

NOTE.—Repayments of principal, interest, etc., \$6,893.34.

ARTHUR E. D. BRUCE,
Secretary and Accountant.

SPECIAL WARRANT ACCOUNTS.

ADMINISTERED BY THE NORTHERN DEVELOPMENT BRANCH.

EXPENDITURE TO 31ST OCTOBER, 1917.

\$60,000 00—Order-in-Council dated 30th September, 1916:—		
Erection of log houses at Toronto and Ottawa		
Exhibitions	\$3,970 73	
Free seed grain for seeding down burnt lands..	8,751 16	
Settlers' relief stores	122 19	
Settlers' cattle fed and looked after during winter 1916-1917	14,268 10	
Settlers' team account, distributing lumber and supplies to settlers burnt out	1,072 68	
Cement sidewalks	876 68	
		\$29,061 54
1,500 00—Part of Order-in-Council, 10th October, 1916—		
Erection of schools at Matheson and Porquis Junction		1,484 92
1,500 00—Order-in-Council dated 24th January, 1917—		
Seeding down roads and vacant land		465 16
25,000 00—Order-in-Council dated 20th February, 1917—		
Purchase of cattle and other live stock		
Cost of cattle purchased (220 head, including calves) and expenses in connection therewith	\$19,867 70	
Cost of rams purchased (15)	400 00	
		20,267 70

REVENUE.

Proceeds of sale of cattle, butter, milk, etc.	\$16,249 49	
13 cows unsold.		
15 rams unsold.		
10,000 00—Order-in-Council dated 18th May, 1917—		
Purchase of horses		
Cost of 17 horses and expenses in connection		
therewith		3,864 18

REVENUE.

Sale of 3 horses and refund	648 75	
14 horses unsold.		
3,000 00—Order-in-Council dated 18th May, 1917—		
Returned soldiers' recreation account		
Expenditure to date		679 84
15,000 00—Order-in-Council dated 26th September, 1917—		
Special fares for returned soldiers		
Expenditure to date		508. 65
		<u>\$56,331 99</u>

ARTHUR E. D. BRUCE,
Secretary and Accountant.

NORTHERN DEVELOPMENT BRANCH.

SEED GRAIN.

Amount refunded by Settlers for Seed Grain Supplied.

October, 31st, 1915, by notes retired and cash paid	\$3,171 36
October, 31st, 1916, by notes retired and cash paid	29,320 00
October, 31st, 1917, by notes retired and cash paid	18,119 04
Total refunded, 3 years ending 31st October, 1917	<u>\$50,610 40</u>

RECORD OF CORRESPONDENCE.

For year ended 31st October, 1917.

Letters received	5,699
Letters mailed	5,442
Circulars mailed	967
	<u>6,409</u>

ARTHUR E. D. BRUCE,
Secretary and Accountant.

DISTRICT OF TEMISKAMING.

Vicinity of Englehart and Charlton.

Work on the construction of bridges was continued throughout the winter of 1916-17.

On the road between Concessions 5 and 6, Township of Evanturel, the bridge partly constructed the previous season, and damaged by the spring freshets of 1916, was re-constructed; the bridge is built on cedar piles and piers, the length, including abutments, is 300 feet, three spans of 60 feet clear, two spans 28 feet and one 16 feet.

The iron bridge built eight years ago on Lots 10 and 11, Township of Marter, was found to be too low and was raised six feet. New approaches were built to each end as the old approaches had been washed away during the spring freshet of 1916.

A new bridge was constructed near the village of Charlton, across the Blanche River on Lots 10 and 11, Concession 5, Township of Dack, 136 feet long, two spans of 50 feet and one of 36 feet, with stone abutments and stone-filled pier.

On the townline between Bryce and Robillard, Lot 4, a bridge was partly constructed.

The balance of the work in this district, under my supervision up to the 1st of June, consisted in re-grading and repairing old roads, constructing culverts and repairing washouts caused by the spring freshets.

MATHESON DISTRICT.

Work performed from November, 1916, to June 1st, 1917.

Kirkland Lake Road:

Hauled 654 cu. yds. of rock from Swastika to Kirkland Lake on Kirkland Lake Road.

Beatty Township:

Built two small bridges, 20 ft. span, and two culverts 3 ft. x 4 ft. x 20 ft. on Lots 9 to 13, Concessions 3 and 4.

Carr Township:

Built three small bridges, 18 ft. span, and four culverts 4 ft. x 4 ft. x 20 ft. on Lots 5 to 8, between Concessions 2 and 3.

Hislop and Beatty Townships:

Built pile bridge across Painkiller Creek on Munro Road, two 18 ft. spans and two 16 ft. spans, on Lot 11, line between Hislop and Beatty.

Stock Township:

Repaired floating bridge across Driftwood River on line between Concessions 5 and 6.

Gravelled Trunk Roads in the Vicinity of Matheson as follows:

Main Street, Matheson, to junction of Porcupine road and trunk road..	1,518 cu. yds.
From junction of Porcupine road along trunk road	583 "
From Wah Tay Beg Station to junction of townline between Taylor and Carr along trunk road	1,320 "
From junction of trunk road and Porcupine road along Porcupine road	1,340 "
From Black River bridge, Matheson, east along Munro road	5,280 "
From Munro road north on townline between Beatty and Carr	110 "
From railway crossing at Matheson along trunk road south	163 "
Town of Matheson main streets	576 "

Approximately 10,890 cu. yds. of gravel was hauled on to the trunk roads leading into the Town of Matheson, surfacing $6\frac{1}{4}$ miles of road.

Taylor and Stock Townships:

Built bridge across Driftwood River on townline between Taylor and Stock; one pile bridge with two 60 ft. spans and one 16 ft. span at each end, to replace old bridge burnt August, 1916.

Playfair Township:

Cut winter road through S. $\frac{1}{2}$ Lot 5, Concession 6, 20 ft. wide, 880 yards, to enable settlers to get to Ramore Station. Built pile bridge across Black River on line between Concessions 5 and 6, Lot 3; two 60 ft. spans and two 16 ft. spans.

Benoit Township:

Built pile bridge on line between Concessions 1 and 2, 170 ft. long, across White Clay River, at Bourkes Station on the T. & N. O. Ry. Repaired Black River bridge in Town of Matheson.

TEMISKAMING DISTRICT.

Vicinity of Cochrane, East and West.

Work was commenced early in May repairing roads burnt out the previous summer. Twenty small ditching, burning and cutting of right-of-way contracts were let, in the Townships of Fournier, Clute, Lamarche, Calder, Newmarket, Fox, Shackleton, McCart and Newmarket. Besides these small contracts, five small bridges were constructed, two repaired, 14 culverts constructed, and roads re-graded and repaired. Four and one-half miles of new road was cut out and grubbed.

During the winter season a camp was at work at Barber's Bay, on the Porcupine Branch of the Temiskaming and Northern Ontario Railway, taking out bridge timber and piles: 228,500 ft. B.M. of pine was taken out and cut into bridge timber and lumber, and 130 bridge piles taken out.

The bridge and dam across the Frederickhouse River at Connaught was completed. The dam and bridge has a length of 547 ft. The dam, as now constructed, is a series of cribs filled with stone and faced with hewn timber; it is very substantial. We are now able to regulate the depth of water in the river above the

dam and on Night Hawk Lake and River, thus making the lake and river above the dam navigable for boats and small tugs for nearly 30 miles. Mining companies and lumbermen can now use this water stretch during the summer season for hauling ore, and towing logs or pulpwood.

My operations in this district ceased on June 1st.

NORTH BAY, SUNDRIDGE AND BURK'S FALLS TRUNK ROAD.

17 miles of road graded and partly cut out.

8 miles of road surfaced with gravel.

12 miles of road repaired, dragged and gravelled in places between Powassan and South River.

65 culverts placed—14 iron and balance wood and stone.

800 yards in length of tap drains dug.

Work was continued on the North Bay and Burk's Falls trunk road about the 18th of May, as soon as the settlers had finished their spring seeding. The road, with the exception of gravelling in places and other slight repairs, had been completed as far south as the Village of South River, 40 miles from North Bay, the previous season. From South River south to the Village of Sundridge, a new road was selected running south along the Grand Trunk Railway, in places, and crossing to the east of the railway, entering the Village of Sundridge from the east along the shore of Stony Lake. The new road has fewer grades than the old to contend with: it is shorter in distance. On the new road $\frac{3}{4}$ of a mile of swamp was met, which required considerable grading and ditching. The road to Sundridge is now well graded and ditched, and gravelled where found necessary. The greater portion of the road passes through a sandy or sandy loam section. The road was continued south-westerly from Sundridge for a distance of $2\frac{1}{2}$ miles; two diversions to avoid bad grades were found necessary in that distance, on the old road now travelled to Burk's Falls. From the end of the road, as now finished, the present travelled road follows as good a route as is possible to select. This road requires re-grading and gravelling in places, and repairing culverts and small bridges.

The trunk road constructed between Callander and Powassan, in previous years, and between Powassan and South River, was repaired with the road drag and small grader early in May, for 12 miles, and about $2\frac{1}{4}$ miles surfaced with gravel where most required.

In addition to the main trunk road a short trunk road was constructed along the 12th and 13th Concession line from the Village of Powassan easterly into the Township of Chisholm; the distance to the Chisholm boundary from Powassan is $5\frac{1}{2}$ miles. The old road was a mere winter road in places, the country being very broken until the Township of Chisholm is entered, where there is found a considerable area of fine land and a very prosperous settlement. The road was widened and well graded for about 4 miles, and 2,200 yards of gravel placed thereon. The remainder of the road into Chisholm was repaired, but, owing to the wet season interfering, was not gravelled. Last season was not very favourable for road construction, partly owing to the amount of rainfall, but, chiefly owing to the difficulty in procuring labour; work was suspended during the haying and harvesting.

There is now a very fair automobile road from North Bay to Sundridge, the distance being nearly 50 miles. From Sundridge to Huntsville large sections of the present travelled road have never been graded, although passable for motor cars



The Espanola Water Power on the Spanish River showing Algoma Eastern Railway Crossing.



Kakabeka Falls.

during the dry seasons. A fair percentage of the country is a light sandy loam, with abundance of gravel or road material. The country along the road is fairly well settled. The repairing of this road through to Huntsville or Bracebridge would not cost a very great deal, taking into consideration the distance between Sundridge and Huntsville.

NORTH BAY AND TROUT LAKE ROAD.

The North Bay and Trout Lake Road, passing through part of the Township of Widdifield and part of the Township of Ferris, was re-gravelled and repaired during the months of June and July for a distance of $7\frac{1}{2}$ miles.

PEMBROKE AND PETAWAWA MILITARY CAMP TRUNK ROAD.

The trunk road between the Petawawa Military Camp and the Town of Pembroke, graded by this Branch in 1914 and surfaced with gravel and crushed rock in 1916, owing to the heavy traffic between the Town of Pembroke and the Military Camp with motor cars and trucks—averaging during the summer months from 100 to 200 vehicles per day—became rutted in places and it was found necessary to repair this road. Screened coarse gravel from a pit at Petawawa Station was hauled by rock cars and traction engine for 8 miles over the western part of this road, and crushed rock from the Pembroke town quarry over the eastern part. The grade at the east end of the Petawawa bridge was also reduced to almost a level. The road was left in splendid condition last October: 10 miles of this road was re-gravelled.

NORTH BAY AND SUDBURY TRUNK ROAD.

Number of miles of road repaired, graded, surfaced and re-surfaced 50
of which 11 miles was graded, 16 miles surfaced with gravel, and the
balance re-graded with small grader and re-surfaced in places or
repaired.

Work was carried on on this road throughout the winter of 1916-17 and up to the end of October, 1917. During the winter of 1916-17 the road was surfaced with gravel in places between Wahnapiatae Station and a point about 5 miles east of Markstay. One bridge, 75 ft. long, was constructed over the Veuve River $2\frac{1}{2}$ miles east of Markstay; also, two bridges, 30 ft. in length, were constructed across the same stream and a tributary, between Markstay and Stinson. Grading and ditching was completed on $10\frac{1}{2}$ miles between Markstay and Wahnapiatae. Sixteen miles of this road was re-surfaced with gravel between Wahnapiatae Station and a point 5 miles east of Markstay. Forty corrugated iron culverts were placed east of Markstay, and 75 wooden culverts constructed between Markstay and Wahnapiatae. Between Sturgeon Falls and North Bay, 23 miles, repairs were made, and the road run over with a small grader, also between Verner and Warren, a distance of 17 miles. Two 40 in. corrugated iron culverts, 80 ft. and 120 ft. in length, were placed at Sturgeon Falls. At Wahnapiatae Station 350 cu. yds. of rock was taken out and the road graded across the Canadian Pacific Railway Company's station



The Rotary Club, Port Arthur and Fort William, en route to Grande Marais.



A view of the Hearst range of mountains on the International Highway, Port Arthur and Fort William to Duluth.



The International Bridge between Ontario and Minnesota, across the Pigeon River, on the International Highway.

grounds. The road between Wahnapiatae Station and Sudbury, a distance of 12 miles, was repaired and rolled with a ten ton steam roller. The road between Sudbury and North Bay, a distance of 80 miles, was opened for through traffic about the first week in October. There is now a good trunk road between these two towns. Settlements have been located in places along the Canadian Pacific Railway between these two towns for the last thirty years, but up to the present time there has been no communication or connection between North Bay and Sudbury by road. The road throughout has been well ditched and graded; it has few bad grades. There are still, however, a few sections that will require re-surfacing with gravel, more particularly the section between Meadowside and Sturgeon Falls and between Warren and Hagar, which will take part of a season to complete.

ROADS IN THE DISTRICT OF SUDBURY.

The Sudbury, Murray Mine and Azilda Trunk Road.—The macadamized road between Sudbury and the Murray Mine, constructed five years ago, was re-surfaced with crushed rock and rolled for a distance of 4 miles, and was continued westward for a further distance of 3 miles to the Village of Azilda, on the Canadian Pacific Railway; this road was graded five years ago. It passes through a section where the soil is either clay or quick sand. It is a road over which there is heavy traffic to the mines and from the farming country in the Chelmsford and Vermilion River valleys. Seven thousand one hundred cubic yards of rock were crushed and placed on the road and 900 cu. yds. of gravel used in the construction of the road. The road was well re-ditched, re-graded and rolled, and is now in first-class condition.

The road between Levack Station and the Village of Levack, near the Mond Nickel Company's nickel mines, as constructed last season, was completed this season. Three and one-half miles of the road was surfaced with gravel and a bridge constructed across the Onaping River, near the Village of Levack, and a second bridge across a small stream.

The Ramsay Lake and Broder Township road was repaired and surfaced with gravel in places, for a distance of 3 miles.

The road from Coniston Station to Dill Siding, Township of Dill, was repaired in places and about a mile of new road cut out and graded.

A winter road was cut out a distance of 10 miles, commencing at a point on the West Shining Tree road $15\frac{1}{2}$ miles north-east of Kashbaw Station, on the Canadian Northern Railway, and running north-westerly a distance of 10 miles into the Township of Connaught, for the purpose of giving access to the copper locations about the centre of said township.

On the West Shining Tree water route a new dam was built, replacing an old one damaged by the spring freshets. This dam is used in connection with holding the water for navigation purposes between the Canadian Northern Railway and West Shining Tree.

Espanola and Webbwood Trunk Road, and Espanola Hill:

The stage road between Espanola Station, on the Canadian Pacific Railway, and the Village of Espanola, at the Spanish River Pulp and Paper Company's mills, was re-graded and re-surfaced with a heavy coat of gravel for a distance of $11\frac{1}{8}$ miles, and the trunk road to Webbwood was re-gravelled for a distance of $11\frac{1}{4}$ miles.

The Espanola Hill from the Spanish River bridge into the Village of Espanola was cut down and a retaining wall of hewed cedar timber constructed for a distance of 270 ft. with an average height of 10 ft. The roadway was widened to a width of 24 ft. and a good substantial railing placed thereon. The hill was well graded, ditched and surfaced with gravel.



Richard's Landing, St. Joseph's Island.

Spanish River and Cutler Trunk Road:

The trunk road between Spanish River Station and Cutler Station, on the Sudbury and Sault Ste. Marie trunk, was re-graded for a distance of $6\frac{1}{2}$ miles, and 4 miles of this was re-surfaced with gravel, one wooden bridge, 20 ft. span, was constructed near Spanish River Station, and 32 corrugated iron and wooden culverts were placed where required between Spanish and Cutler. Cutler is now the end of the Sudbury and Sault Ste. Marie trunk road from the east. From Cutler to Algoma Mills there is a gap of about 15 miles still to be constructed to connect Sudbury and Sault Ste. Marie.

SAULT STE. MARIE AND SUDBURY TRUNK ROAD.

Work was commenced on the Sault Ste. Marie and Sudbury trunk road in February, 1917, at Blind River, where a bridge 375 ft. long was constructed across the west branch about 2 miles west of the Town of Blind River on the trunk road, to replace an old wooden bridge, which was unsafe for traffic. Part of the old bridge was built on piles and part on piers, all of which were in a dilapidated condition. The new bridge is constructed through its entire length, 375 ft. from shore to shore, of rock taken from the east bank of the river. About the centre of the stream a 30 ft. opening was left, sufficient to allow the volume of the stream to pass. On either side of this opening there is a crib built of white pine and filled with rock. The balance of the bridge is comprised of a rock fill, varying in depth



A section of the Sault to Sudbury Trunk Road, through the Garden River Indian Reserve.
Water bound macadam.

from 8 to 20 ft. as the bed of the stream in places was composed of a soft muskeg bottom. It was floored with heavy round timber 40 ft. in length on to which the rock fill was built, or dumped. The approaches to the bridge were well graded with broken rock; 4,200 cu. yds. of rock was used in this bridge.

About 4 miles west of the Blind River bridge 2,236 cu. yds. of gravel was hauled from a pit south of the Mississauga River, and placed on about 4 miles of the trunk road, which had for some time been badly in need of repair. There is still about $1\frac{1}{2}$ miles of this road which requires gravelling, which could not be finished last winter before the ice broke up in the river over which the gravel had to be drawn.

During the months of June and July repairs were made to the trunk road between Sault Ste. Marie and Echo Bay, a distance of 15 miles. About a mile of this road was covered with rocmac and the balance macadamized three years ago.



Trunk Road, Village of Devlin, Rainy River District.



Pine River Crossing, International Highway, Port Arthur and Fort William to Duluth.

Owing to the heavy traffic, the surface had become rutted in places and required repairing. This was done by spreading crushed rock over the surface.

East of Echo Bay, owing to the unexpected rise in the waters of the bay, it was necessary to raise the roadbed nearly one foot; 200 cu. yds. of gravel and rock was required.

Three miles of road west of Bruce Mines was re-surfaced with gravel and parts as far west as Echo Bay were repaired. This consisted of general repair work, re-grading, dragging and surfacing with gravel, where found necessary, and opening up ditches, for a distance of 18 miles. One mile of this macadamized road was covered with Tarvia B, with a view to testing the cost of maintenance of such a road.

Between Sault Ste. Marie and Algoma Mills there is 102 miles of trunk road, most of which has been surfaced with gravel or stone, and is now in fair condition throughout for automobile traffic. Constant attention will be required to keep such a road in repairs.

Goulais Bay Road:

The Goulais Bay road, running north from the Town of Sault Ste. Marie to Goulais River and Bay, was graded and improved this season for a distance of about $3\frac{1}{2}$ miles. This work was commenced in 1916 but not finished. The road, although constructed several years ago, was in such a condition, owing to bad grades, that it was of very little use to the farmers residing in the valley of the Goulais River and at Batchawaung Bay. Three of the worst grades were improved by diversions; the road was widened, ditched, re-graded and gravelled, and is now in fairly good condition, sufficient to meet the requirements of the settlers.

ROADS ON ST. JOSEPH ISLAND.

Number of miles of road repaired, ditched and graded	10
Number of miles of road surfaced with gravel	5½
Number of corrugated iron culverts placed	20
Number of concrete culverts built	3
One small concrete bridge built.	
One cedar bridge built.	
One mile off-take drain constructed.	

In June, 1917, under your instructions, I proceeded to St. Joseph Island and made a careful examination of the main roads thereon, with a view to laying out trunk roads or improving old roads, as would best meet the needs of the settlers and assist in the further development of the sparsely settled parts of the Island. The Island has an extreme length from north to south of 18 miles, a width from east to west of 12 miles, comprising an area of 90,000 acres. The population is approximately 2,500, chiefly engaged in agricultural pursuits. About one-half of the Island is in a fair state of cultivation; the soil varies in places from a clay loam to a light sandy loam, well adapted for agricultural purposes, especially dairying and fruit growing. There are large areas with shallow sandy soil, only suitable for pasture. Judging from the many fine orchards met with, the Island is well adapted for fruit growing; there is on the Island one very fine nursery. Large herds of fine cattle are to be seen everywhere on the farms; dairying is one of the chief industries. The villages of Richard's Landing and Hilton, the former on the north shore and



A nursery on St. Joseph's Island.



An apple orchard on St. Joseph's Island.

the latter on the east, are the two most important places on the Island. At these points all the larger vessels plying along the north shore visit, and from these two points most of the farm produce grown on the Island is shipped. At these villages the settlers purchase their supplies. Wharves are to be found at different points around the shore where small saw mills operated years ago. These wharves are used by the settlers or by the tourists located on the many beautiful points along the shore.

On the Island there is approximately 100 miles of old roads cut out, a fair portion of which have been graded or partly graded, and in some instances the roads have been well drained and surfaced with gravel. The Municipal Councils and the settlers in general appear to be taking a very great interest in their roads, more so than in other sections in Northern Ontario, and are anxious to assist in every way possible in maintaining them. What they request is some assistance in the construction of a trunk road across the Island in both directions, connecting the most thickly settled portions of the Island with the two main shipping points—Richard's Landing and Hilton. After a careful examination of the Island, travelling over all the leading roads in company with members of the different Municipal Councils and others familiar with the local conditions, I found that the best interests of the community would be served if the following roads were re-graded, properly drained and surfaced or re-surfaced with gravel, which is to be found in abundance in many places with a reasonable length of haul. These proposed trunk roads pass through the most thickly settled portions of the Island and also through the best agricultural lands and along existing roads with fairly good grades and few engineering difficulties to encounter. Tributary to these proposed trunk roads branch roads can be built to all sections of the Island, or existing roads can be repaired by the different Municipal Councils as necessity demands and means will permit.

Roads selected: Commencing at Richard's Landing, thence south on side-road 10 and 11, 7 miles, to Carterton Post Office on the O and P concession road, thence west $1\frac{1}{2}$ miles on the O and P line to the 5th and 6th side-road, thence south on the 5th and 6th side-road to Sterling Bay, 8 miles, thence returning to the O and P Concession west to the A line side-road, $1\frac{1}{4}$ miles, thence south and north on the A line concession, $2\frac{1}{2}$ miles and $5\frac{1}{2}$ miles, respectively, to the B and C concession road leading to Richard's Landing, and east along the latter $2\frac{1}{2}$ miles to Richard's Landing.

The above main trunk roads to be connected with the Village of Hilton by improving either the present road to Hilton on the L and M concession line, or on the O and P line, the distance being about 6 miles. There are no engineering difficulties on either of them.

Work commenced about the middle of June on the 10th and 11th side-road; also on the A line and on the road running west from Richard's Landing to the A line. The work consisted of clearing out and straightening the old roads where necessary, re-ditching, grading and surfacing with gravel; also improving the grades on the worst hills and putting in culverts and small bridges. About 10 miles of road was graded— $5\frac{1}{2}$ miles of this was well surfaced with gravel, 20 corrugated iron culverts were placed, and 3 concrete culverts and one small concrete bridge constructed, also one cedar bridge; off-take drains were constructed where necessary, and the Two-Tree Creek was cleaned out for a distance of $\frac{3}{4}$ of a mile to prevent flooding of roads. This work was performed at a cost of \$12,139.17.

ROADS ON MANITOULIN ISLAND.

Number of miles of road graded and surfaced with gravel, 7.

1 stone bridge, 48 feet long constructed.

1 wooden bridge, 30 feet long constructed.

17 corrugated iron culverts placed.

2 stone culverts constructed.

4 wooden culverts constructed.



A view on the Trunk Road west of Kagawong, from Little Current to Gore Bay, Manitoulin Island.

Work on the Manitoulin Island, as commenced in the season of 1916, was continued throughout the summer of 1917. Work began early in June; it consisted of grading and re-surfacing with gravel about 3 miles of road beginning at Kagawong on the road between Little Current and Gore Bay to Ice Lake.

The road from West Bay south to Mindemoya was completed; 3 miles was graded and surfaced with gravel, 13 corrugated iron culverts were placed, one stone bridge, 48 ft. long, and one wooden bridge 30 ft. long, was constructed.



Mount McKay, approximately 1,200 feet high. On International Highway, Port Arthur and Fort William to Duluth.

On the trunk road between Honora and Little Current 11¼ miles was graded and surfaced with gravel.

These roads were well ditched and graded, and the finest quality of gravel placed thereon. It will take another season to complete the trunk road between Little Current and Gore Bay, a distance of 40 miles. At present the road throughout is in fairly good condition, except in a few places where it requires re-surfacing and ditching.

On the above work there was \$8,203 expended; good value was received for the amount expended. The men employed were all settlers living on the Island. An attempt was made to repair the worst parts of the Little Current and Manitouaning Road, but owing to the difficulty in getting labour this work was postponed. This is the second most important trunk road on the Island. It gives to the settlers in the south-eastern part of the Island an outlet to the railway station at Little Current, and passes through sections of the country thickly settled and well cultivated. Ten thousand dollars expended on this road in grading, surfacing and repairing small bridges would put it in good condition.

ROADS IN THE DISTRICTS OF PORT ARTHUR AND FORT WILLIAM.

Number of miles of road surfaced with gravel and shale	26
Number of miles of road repaired, re-graded, graded, ditched and cut out... of which 6 miles is new road.	46

Work was commenced in these districts about the middle of June and was continued up to the end of October: rainy weather and scarcity of labour retarded the work considerably. The heaviest part of the work was done on the International Highway, or what is locally known as the Port Arthur, Fort William and Duluth Highway, as far as Pigeon River. The southern 30 miles of this road was re-graded in places or gone over with road drag or small grader, and 22 miles of the road was re-surfaced with gravel or shale rock. The northern approach to the International Bridge at Pigeon River was completed; the approach is 75 ft. in length and 23 ft. wide. Fourteen thousand cubic yards of gravel and shale was placed thereon; 26 miles of the road was gone over with road drag and 4 miles re-graded. This road was opened for automobile traffic on the 18th of August. There is now fairly good communication between Port Arthur, Fort William and Duluth. The distance from Fort William is slightly over 44 miles, and Pigeon River to Duluth approximately 157 miles.

Township of Oliver:

Repair work, including re-grading and gravelling in places, was performed on the Oliver Road, Lots 10 to 17, 21½ miles.

Township of Lybster and Gillies:

Silver Mountain Road: 4½ miles was re-graded in the Townships of Lybster and Gillies.



A view on the International Highway, on the International Boundary, Pigeon River Cascade.



A view in the valley of the Rainy River, along the International Boundary.

Township of Gorham:

Cut out and graded road between Lots 6 and 7, across Concessions 2, 3 and part of 4; $2\frac{1}{4}$ miles.

Township of O'Connor:

Cut out and graded road across Lots 4, 5 and 6, Concession 1; $1\frac{1}{2}$ miles. Ditched and graded road between Lots 6 and 7, across Concessions 5, 6 and 7; $2\frac{3}{4}$ miles.

Township of Ware:

Cut out and partially graded road across Concession 3, Lots 9, 10, 11 and 12; 2 miles.

Arthur Street, Township of Paipoonge:

Re-graded and gravelled road across Lots 25 to 30, $2\frac{1}{2}$ miles, and cut out, graded and surfaced with gravel in places, new road across Lots 31, 32 and 33, Concession 1; $1\frac{1}{4}$ miles.

ROADS IN KENORA DISTRICT.

Number of miles of road partly cut out, ditched and graded	14 $\frac{1}{2}$
of which $4\frac{1}{2}$ miles was surfaced with gravel.	
Number of iron culverts placed	18
Number of stone and wooden culverts built	19
Number of bridges repaired	2

Work in this district was commenced early in June in constructing and repairing roads in the Township of Pellatt, north of Keewatin; $3\frac{1}{4}$ miles of new road was constructed and 2 bridges repaired. These roads are cut out, graded and half a mile surfaced with gravel.

The balance of the work was performed in the agricultural sections east and west of Dryden on the Canadian Pacific Railway. In this section of the country, extending from Vermilion Station east to Dymont Station, a distance of 56 miles along the Canadian Pacific Railway, there is to be found good sections of agricultural land, broken in places. The soil varies from a light coloured clay land to clay loam and sandy loam. The best section is located along the railway in the vicinity of Dryden Station and extending west to Eagle River, a distance of 17 miles, and east of Wabigoon 13 miles. In this section there are fairly large areas of good agricultural land, part of which has been settled on for nearly twenty years. Many of the settlers have made good progress. A good proportion of the country was burnt and re-burnt over many years ago and is now grown up with a small second growth timber, jack pine, poplar, birch and spruce. The land, in many places, is easily cleared.

Good colonization roads have been built in several of the townships and along the railway between the different stations. Very few miles of gravel roads have as yet been built and as the soil is chiefly clay, the roads, during the wet seasons of the year, become badly rutted and unfit for traffic. It is difficult to procure gravel

in places. I found that the main travelled road a few miles east of Dryden was partly constructed and in some places was only a mere trail or winter road. After careful examination of different roads constructed, and consultation with the settlers, I found that the best interests of the agricultural sections in that district would be served by constructing a fairly good gravel road along the concession lines paralleling or as near to the railway as possible, or adjacent to the right-of-way where practicable, following, as far as possible, existing roads. A careful survey and exploration was made from Dymont to Oxdrift, and the old roads and trails were straightened out and diversions made where required to avoid bad grades. Work was commenced at Dryden and the road cut out where required, well ditched and graded as far east as Ellen Bay, a distance of nearly 10 miles: 4 miles of the worst part of this road was surfaced with gravel. It will be necessary, however, to re-surface the balance of this road as soon as conditions will permit as the soil is nearly all a heavy clay or clay loam.

A short road was constructed west of Dryden along the line between Concessions 5 and 6 about 2 miles, and graded, to give to a small settlement an outlet to the railway.

From the proposed trunk road along the railway several good colonization roads have been opened up into the agricultural townships to the north, and when the main trunk road is completed, connecting these roads with the railway stations, it will be of very great service to the different scattered settlements north to the Grand Trunk Pacific Railway. There is a very fine tract of land in this section of the district, a large percentage of which is not yet under cultivation, partly owing to the lack of more good roads and schools. The construction of a fairly good trunk road along the Canadian Pacific Railway, from station to station, will greatly relieve the situation. The character of the country is such as to warrant a reasonable expenditure on trunk roads in this particular section. The settlers as yet are comparatively poor and cannot do very much in the way of assistance, further than in the maintenance of the road. This section excels in the production of clover and timothy seed; the settlers find a ready market for their produce at the pulp and paper mills at Dryden.

ROADS IN THE DISTRICT OF RAINY RIVER.

Number of miles of new roads cut out only	23
Number of miles of new roads cut out, grubbed and graded	23
Number of miles of old roads regraded and repaired	14
Number of miles of old roads resurfaced with gravel	18.6
Number of culverts constructed	27
Number of bridges constructed	3
Number of feet of tap drains constructed	4,217

During the winter of 1917, beginning about the middle of January, several small contracts were let for the surfacing of parts of trunk roads where gravel could be easily procured and hauled more cheaply than during the summer season. As soon as the season opened up in May the main trunk roads were run over with road drags or small graders where they had become rutted late in the fall of the previous season. When the settlers had finished their seeding, small contracts were given to settlers throughout the district for the cutting and clearing of roads in the section between Fort Frances and the Lake of the Woods; these contracts numbered about thirty. A few road camps were started about the beginning of June and were



The village of Powassan, on the North Bay and Huntsville Trunk Road.



A view of the village of Stratton, on the Fort Frances and Rainy River Trunk Road and Canadian Northern Railway.

continued throughout the season. The main work consisted in the building of roads running north and south from the main trunk road between Fort Frances and the mouth of Rainy River, and the re-gravelling of parts of trunk roads. This was found necessary owing to the increase of traffic of former years. The main trunk road is now joined up by way of Beaudette, where the Canadian Northern Railway crosses Rainy River into Minnesota. There is a ferry across the river connecting the roads in Ontario with the State roads in Minnesota, which State roads extend westward and connect with the main trunk road running south from Winnipeg. It is now possible to reach Winnipeg by automobile from Fort Frances, and also reach several of the larger towns in the northern part of Minnesota. The extra amount of traffic caused by the opening up of these roads has necessitated the building of a better class of trunk roads throughout the Rainy River Valley. Tourists from the central part of Minnesota cross the International Boundary at Fort Frances and travel westward along the Fort Frances and Rainy River trunk road, re-crossing the river at Beaudette by ferry into Minnesota and proceed west and north to Winnipeg. The branch trunk roads running north and south from the main trunk road constructed during the last five years have been gravelled, and have opened up large sections of the best agricultural land in the valley.

Two creameries, one cheese factory, and one grist mill were opened up this season at Devlin, Lavallee and Emo, and notwithstanding the scarcity of farm labour throughout the district good progress is being made in clearing up new sections of land. A good class of settlers have come into the district within the last few years; in travelling through the district there is seen every indication of satisfactory progress and prosperity. There are still required, however, new roads to meet the wants of new settlements in the townships distant from the railroad and from Rainy River, townships where settlers have been located for several years with roads only passable during the dry seasons of the year. It will take at least two or three seasons yet to construct sufficient roads to meet the necessary requirements of the new settlers now located. There are few sections in the newer parts of Ontario where there is a better future, from an agricultural standpoint, than in the Rainy River Valley. The settlers find a ready market for their farm produce in the lumber camps and at the pulp and paper mills at Fort Frances, and logging camps on the shores of Rainy Lake.

Hereafter is a summary of the work performed this season:

Township of Atwood:

Re-graded trunk road across river lots 17 to 25; $1\frac{1}{2}$ mile.

Township of Curran:

Gravelled road east of Secs. 4 and 9; 2 miles.

Township of Blue:

Road cleared, grubbed and single ditch west of Secs. 6, 7 and 18; 3 miles. Road cleared, grubbed and single ditch north of Secs. 7 and 8; 1 mile, 1,150 ft. This road gives an outlet to settlers who have been in that part for years without a summer road, and also drains the land adjoining.

Township of McCrossen:

Cleared road allowance between Concessions 3 and 4, across Lots 1 and 2; 1 mile. Cleared road between Lots 2 and 3; $\frac{1}{2}$ mile. Re-graded road between Lots 2 and 3, across Concessions 1 and 2; 2 miles. Cleared road across Concessions 6, 5 and 4, east of Lot 1; 3 miles. The above road when completed will give an outlet to a large number of settlers.



A view on the Fort Frances Trunk Road through the
Manitou Indian Reserve.

Township of Morson:

Cleared road between Lots 12 and 13, across Concessions 1, 2 and 3; $2\frac{1}{2}$ miles. Cleared road south of Lot 13, Concession 1; 70 rods.

Township of Nelles:

Cleared road north of Sections 5 and 6; 2 miles. One and one-quarter miles of this road was grubbed and graded. Cleared road between Sections 7 and 8; $\frac{1}{2}$ mile north from the south-east corner of Section 7. Cleared road between Sections 16 and 17; $\frac{1}{2}$ mile.

Township of Morley:

Re-graded trunk road north of Sections 19 and 20; 2 miles.

Township of Sifton:

Road ditched, grubbed and graded between Lots 8 and 9; $\frac{1}{2}$ mile on the south half of Concession 1. Road ditched and graded between Lots 8 and 9, Concession 2; $\frac{1}{2}$ mile.

Township of Worthington:

Gravelled and re-graded trunk road across river Lots 1 to 48; 3 miles.



A view at the Long Soo Rapids on Rainy River.

Long Sault Reserve:

Cleared road allowance 33 ft. wide between Lots 30 and 31; 1 mile, 13 chains. Gravelled trunk road commencing at the west boundary of Long Sault Reserve and thence east $2\frac{5}{8}$ miles. Regraded trunk road $4\frac{1}{2}$ miles across the Long Sault Reserve.

Township of Richardson:

Cleared, grubbed and partly graded road between Lots 2 and 3, Concession 1; 1 mile. Cleared, grubbed and graded road across Lots 3 and 4, between Concessions 1 and 2; 1 mile. Road cleared and low spots ditched across Lots 5 to 10, between Concessions 1 and 2; 3 miles.

Township of Potts:

Road cleared between Lots 2 and 3, across Concessions 1, 2 and 3; 3 miles.
Road cleared between Lots 8 and 9, across Concessions 1 and 2; 2 miles. Road cleared across lot 8, between Concessions 2 and 3; $\frac{1}{2}$ mile.

Township of Mather:

Road cleared east of Lot 1, across Concessions 5 and 6; $1\frac{3}{4}$ miles.

Township of Kingsford:

Road grubbed and graded across Lot 3, between Concessions 1 and 2; $\frac{1}{2}$ mile.
Repaired road between Lots 4 and 5, Concession 2; 1 mile.



A range of mountains on the International Highway.

Township of Devlin:

Road cleared and grubbed a distance of $\frac{3}{4}$ mile and $\frac{1}{2}$ mile corduroy laid, and ditched between Sections 18 and 19. Road cleared, grubbed and ditched; $\frac{1}{3}$ mile, and 47 rods of corduroy laid west of Section 18, Devlin. Road gravelled east of Sections 2, 11 and 14; 3 miles.

Township of Lash:

Graded road between Sections 34 and 35; $\frac{3}{4}$ mile, and partly graded $\frac{1}{4}$ mile. Graded road between Sections 25 and 26; $\frac{1}{3}$ of a mile. Single ditched road between Sections 14 and 15 and laid 90 rods of corduroy; 1 mile. Single ditched and corduroyed road north of Section 15; $\frac{1}{5}$ of a mile. Gravelled trunk road north of Section 28 and south of Section 32; $\frac{2}{3}$ of a mile.

Carpenter and Dobie Townline:

Road gravelled across Concessions 4, 5 and 6; $2\frac{1}{2}$ miles.

Township of Burriss:

Re-graded and gravelled road between Lots 8 and 9, across Concessions 1, 2, 3 and 4, and jog on correction line; $4\frac{1}{4}$ miles.

Township of Crozier:

Re-graded and gravelled trunk road north of Sections 19 and 20; 1 mile. Road cleared and grubbed north of Sections 34 and 35; $1\frac{1}{2}$ miles. Three-quarters of a mile of this road was ditched.

Township of Miscampbell:

Road corduroyed and ditched between Lots 8 and 9, Concession 3; $\frac{1}{2}$ mile. Road re-graded and ditched across Lots 9 and 10, Concessions 2 and 3; 1 mile. Road grubbed, graded and ditched between Lots 10 and 11, Concession 3; 1 mile.

Township of Woodyatt:

Road gravelled between river Lots 32 and 33; $1\frac{3}{4}$ miles.



A view on the International Highway through Rose Valley along Pine River, showing the Howard range of mountains to the left, rising to a height of 1,000 feet.

Mine Centre:

Completed grading of road between Mine Centre and the Olive Mine, distance of $4\frac{1}{2}$ miles. One-half mile of this road was gravelled.

Township of Carpenter:

Graded road east of Lot 1, Concession 2; $\frac{3}{4}$ of 3 mile.

Wild Lands Reserve:

Road commencing at the north-east corner of Section 29, and thence along the north boundary of Sections 29, 28 and 27; $2\frac{1}{4}$ miles. This road was cleared, grubbed and graded, and $2\frac{1}{2}$ miles of ditch dug.

If this road is continued another mile it will give an outlet to the settlers in the vicinity of McGinnes Creek and also will open up a fine tract of land in the Wild Lands Reserve.

In addition to the above-mentioned work the trunk road between Rainy River and Fort Frances was kept dragged when necessary.

To the Honourable the Minister of Lands, Forests and Mines:—

SIR,—I beg to recommend that the following amounts be expended in the construction of new roads, repairing, grading and ditching of old roads, re-surfacing with stone or gravel of new and old roads, construction of bridges and culverts, and the improvement of waterways in the Districts of Rainy River, Kenora, Port Arthur and Fort William, Sault Ste. Marie, Algoma, Sudbury, Nipissing, Parry Sound, Muskoka, Manitoulin and St. Joseph Islands, during the season of 1918, as follows:

District of Rainy River:

In the Rainy River Valley in the construction of new roads in the partly settled townships in the northern part of the valley; the surfacing with gravel of trunk roads now graded, or partly re-surfaced; the construction or repairing of bridges and culverts \$50,000

District of Kenora:

Repairing of old roads north and north-west of Keewatin and Kenora; the continuation of the trunk road paralleling the Canadian Pacific Railway east and west of Dryden Station, between Dymont and Eagle River, and the repairing of existing roads between the Canadian Pacific Railway and the National Transcontinental Railway (Canadian Government Railway) north-east and north-west of Dryden, and constructing new roads on the Canadian Government Railway 35,000

District of Port Arthur:

Re-surfacing with gravel trunk and main roads; the construction of new roads, north and east of Port Arthur, and the cutting out of a winter road into the mining section around Duck Lake, north of Schreiber on the Canadian Pacific Railway 40,000

District West and South-west of Fort William:

To complete the surfacing with gravel or stone of the International Highway between Fort William and Pigeon River (en route to Duluth), and the construction of new roads and repairing of old roads in the Townships of Conmee, O'Connor, Gillies, Lybster, Strange and Pearson, and in the new agricultural sections along the International Highway 40,000

Sudbury and Sault Ste. Marie, and Copper Cliff and Creighton Trunk Roads:

Surfacing in places with stone and gravel the trunk road between Sudbury and Sault Ste. Marie; the construction of new roads in the agricultural sections west of Espanola, north of Thessalon, and repairs to old roads; surfacing a trunk road from Copper Cliff to Creighton Mine 45,000

Manitoulin Island:

To complete the grading and gravelling of the trunk road between Little Current and Gore Bay, and to grade and gravel a trunk road between Little Current and Manitouaning 15,000

St. Joseph Island:

To grade and surface with gravel trunk roads laid out on St. Joseph Island	15,000
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Districts of Sudbury and Nipissing:

To construct new roads in the agricultural sections north and south of the Canadian Pacific Railway between Sturgeon Falls and Sudbury; repairing trunk roads north of Sudbury into the Blezard Valley; improving road and water route into the West Shining Tree Mining Section; re-surfacing of parts of the Sudbury and North Bay trunk road, between North Bay and Markstay	60,000
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Districts of Nipissing, Parry Sound and Muskoka:

The extension from Sundridge south of the North Bay, Sundridge and Huntsville Trunk Road; the completion of the Chisholm Trunk Road, and the repairing of the trunk road from North Bay to Sundridge	40,000
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District of Nipissing:

Construction of trunk road north of North Bay through the Township of Widdifield, and improving and re-surfacing trunk road from North Bay east to Mattawa and east of Mattawa	10,000
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Unforeseen work, surveys of new roads, renewing and repairing of bridges and culverts, re-surfacing and improving old roads, and the construction of short roads in sections where new settlement is taking place	30,000
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Office and engineering expenses, equipment and new plant	20,000
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\$400,000

J. F. WHITSON,
Commissioner.

To the Honourable, the Minister of Lands, Forests and Mines, Ontario:

SIR,—For the season of 1918, under the supervision of the Northern and North-western Ontario Development Acts of 1912 and 1915, I recommend for the construction, repair and maintenance of roads, bridges and culverts, the following expenditures:

For the District of Temiskaming and Northern Part of Algoma:

Along Temiskaming and Northern Ontario Railway:

From Cochrane to Porquis Junction	\$35,000
From Porquis Junction to Boston Creek	35,000
From Boston Creek to Earlton Junction, including the townships served by the Elk Lake and Charlton branches of the T. & N. O. Railway	50,000

Along Transcontinental Railway:

Along this railway from the Quebec boundary to the Town of Hearst at the junction of the Transcontinental Railway with the Algoma Central Railway, including roads for the returned soldiers' and sailors' settlement in O'Brien Township	50,000
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Porcupine Mining District:

For the improvement of roads in this area and for the building of further roads in the Township of Mountjoy	20,000
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<i>Unforeseen Expenditures and Contingencies</i>	10,000
	<hr/>
	\$200,000

All of which is respectfully submitted.

I have the honour to be, Sir,

Your obedient servant,

C. H. FULLERTON,

*Acting Director, Northern Development
Branch, Temiskaming District.*

Toronto, October 31st, 1917.

AGRICULTURAL WORK CARRIED ON IN CO-OPERATION WITH THE
DEPARTMENT OF AGRICULTURE.

ONTARIO GOVERNMENT CREAMERY, NEW LISKEARD, ONT.

The Ontario Government Demonstration Creamery, erected in the Town of New Liskeard during the summer of 1917, is an ideal of perfection and completeness in every detail. The Government spared no effort to make the structure permanent with a view of establishing a manufacturing centre for the manufacture of creamery butter of the best possible quality.

New Liskeard was chosen as the location on account of railroad and market facilities. A site was bought near the station and work commenced, and in August the plant was put in operation under the direction of A. MacLachlan, a graduate

butter-maker of the Ontario Agricultural College, and a man of wide experience in the business. Owing to the fact that it was somewhat late in the season when the plant was put in operation, not so many farmers patronized it as would have had work commenced early in the spring. However, results were better than expected and those in charge were well satisfied. The creamery is to be in operation all winter (this was not expected) which goes to prove that the farmers are falling in line and are well satisfied with results. Inquiry among the farmers sending cream to the creamery, as to what their opinion is regarding the scheme is usually answered thus: "I am exceptionally well pleased with results." "I believe in the creamery to this extent that I am going to add as many more cows to my herd as I can." "My wife never wishes to make butter again." "My cows are making me more money than when we churned the cream at home."

With the spring flow of milk the quantity of cream will increase greatly. Then there are many new patrons preparing to send cream and as the manager's slogan is "Once a patron, always a satisfied patron," there is little chance of many, if any, farmers quitting.

The following figures shows business to November 30th:

Operations were started on August 18th, and up to the 31st we took in 7,016 pounds of cream, producing 1,852 pounds of fat, making 2,342 pounds of butter for which we received \$989.29, and paid patrons for cream \$830.10 at the rate of 45c. per pound fat.

From September 1st to September 30th we took in 12,570 pounds of cream, producing 3,520 pounds of fat, making 4,354 pounds of butter for which we received \$1,867.70, and paid patrons for cream \$1,669.00 at the rate of 48c. per pound fat.

From October 1st to October 31st we took in 11,327 pounds of cream, producing 3,187 pounds of fat, making 3,890 pounds of butter for which we received \$1,728.59, and paid patrons for cream \$1,567.54, at the rate of 49c. per pound fat for first half and 50c. per pound for last half.

From November 1st to November 30th we took in 6,172 pounds of cream, producing 1,660 pounds of fat, making 1,884 pounds of butter for which we received \$902.41, and paid patrons for cream \$836.95, at the rate of 50c. per pound fat.

Making total for three and one-half months of:

Thirty-seven thousand and eighty-five pounds of cream, 10,219 pounds of fat, 12,470 pounds of butter, \$5,487.99 cash received for butter, \$4,903.59 paid out to patrons; an average price per pound fat, 47.98; number of patrons sending cream, 65. This number will be more than doubled for 1918, and almost every person who patronized the creamery the past season is increasing his herd, and some have already doubled them.

At the present time we are taking in 1,500 pounds of cream per week, making about 500 pounds of butter.

In conclusion I beg to state that the putting of a creamery in operation in the Town of New Liskeard for the benefit of the farmers of the lower end of the district is materially, in a financial way, helping—by providing an outlet for all the cream they are prepared to produce. It is now up to the farmer. There can be no doubt about the future of the business; good and ample market is already in the district for all the butter that can be produced.

SALE AND DISTRIBUTION OF COWS THROUGH TIMISKAMING DISTRICT, 1917.

During the early spring of 1917, at the time when the Government decided to erect a creamery in New Liskeard, the Government was approached by a number of farmers interested in stock (milch cows) and who desired to purchase good grade cows, to ascertain the chances of having a few carloads bought and sold in the district. The Government decided to comply with the request and bought three carloads of grade cows, milkers, springers, etc. These were shipped to New Liskeard and sold by public auction (to farmers only) on April 13th. Farmers came from as far north as Cochrane to attend the sale. Forty-three head were sold and, as the buyers were located all along the line of the Timiskaming and Northern Ontario Railway, the Government decided to ship freight prepaid to the buyer's nearest station.

The interest taken in the sale induced the Government to carry on, and in the early summer nineteen more head of milch cows were shipped to New Liskeard and eighteen head to Monteith. These were advertised for sale at cost price, the farmers paying transportation from place of buying to their own farms.

Despite the fact that all good milch cows are very high in price and hard to buy, the Government was able to pick up a good average lot of cows of grade Ayrshire and Shorthorn type.

The auction sale of April 13th gave very creditable results, the cows selling for a price sufficiently high to cover purchase price and transportation. The private sale of those shipped in later worked out just as well as expected; buying was naturally more deliberate and extended over a few months' time. All cows were sold for cash at time of sale, the reason for so doing being that the new Government Loan Scheme, whereby a farmer of good standing may borrow up to \$500.00 from the Government for the purpose of buying stock and otherwise improving his farm made it possible for needy farmers to get the necessary cash to buy stock with.

In addition to buying cows, the Government also bought a few carloads of horses and shipped them to New Liskeard and Monteith to be sold to settlers at cost. The demand for horses did not prove as great as expected, so that only the one lot was sent in. The purchase of good stock, to be sold to the settlers at cost, is a very creditable line of work and one to be followed up.

In the districts west of the Great Lakes the farmers are taking a much greater interest in live stock. This increased interest is largely due to the development of dairying and their appreciation of the importance of live stock in keeping up the fertility of their farms. In these districts the Government sold at auction for cash forty-three cows at Port Arthur, seventeen at Kenora, eighteen at Dryden and forty-three at Devlin.

In Muskoka and Parry Sound Districts sheep raising is becoming a very important industry, but the farmers are seriously handicapped by the fact that there are very few breeders of pure-bred stock. Realizing the difficulty the Government purchased thirty pure-bred rams and sold them at cost to the farmers.

The results of efforts on the part of the Government in assisting the farmers along live stock lines have been very encouraging indeed. It has enabled farmers to get good stock at reasonable prices and will undoubtedly have a very desirable influence upon the building up of the live stock industry of Northern Ontario.

THE ESTABLISHMENT OF NEW LISKEARD DEMONSTRATION FARM.

In the fall of 1916 the Government, under Hon. G. Howard Ferguson, Minister of Lands, Forests and Mines, decided to establish a Demonstration Farm at New Liskeard. The Town of New Liskeard donated 70 acres of land, 30 of which is cleared. In addition, the Government bought 160 acres of wooded and slashed land, making a total of 230 acres of unbroken, tillable land. All but 80 acres is within the town limits and ideally located for farmers visiting the town either by train or vehicle. The soil varies from sandy loam to clay and is quite characteristic of the average soil of the New Liskeard farming community and north to Englehart.

The farm is to be strictly a demonstration farm for the purpose of testing out the different kinds of field and root crops most suitable to the district. It is also the aim of those in charge to produce seed of first-class quality for sale to farmers throughout the district. These lines of work, properly carried on, cannot help but stimulate and benefit New Ontario agriculture, because of the fact that conditions are different to those of the older part of the Province where we have a more permanent agriculture. Somewhat short seasons demand close attention to soil cultivation, seed, varieties and methods of seeding. These are things the Government plan to take up on this new farm.

It was too late in the fall of 1916, when the farm was taken over, to do any work on the cleared part of the farm. Work was commenced in the spring, but it was found that, on account of the land having been a commons for years, it was infested with all kinds of weeds and would need to be summer-fallowed, at least it was considered advisable to do so.

One acre was given over to the pupils of the Continuation School for garden work. This they planted to potatoes, doing all work under the direction of the local office of the Department of Agriculture.

A part of the land summer-fallowed was put in shape for fall wheat and a small acreage sown to Dawson Golden Chaff the last week in August. It showed up very well in the fall and should winter through all right.

Plans of up-to-date farm buildings are being prepared, and will be erected at an early date. At least twenty-five head of high-class pure-bred dairy cattle will be kept and other kinds of pure-bred stock as well. Good young stock will be reared for sale to farmers throughout the district. Owing to the fact that time has not permitted the erection of proper farm buildings, stock on hand consists only of one team of Clydesdales, and one pure-bred imported Yorkshire boar held for service.

In addition to the farm buildings the Government propose to erect an up-to-date Agricultural High School and already a very commodious Judging Pavilion and Assembly Hall has been erected and is now in course of completion. This building will be used for short course work in the judging of all kinds of live stock and seed. Courses embracing every feature of farm and domestic science work will be taught and demonstrated in the school and hall. All this bespeaks a new and greater interest in New Ontario agriculture, the benefit of which will only show in the years to come.

It is the intention of the Government to put the farm in full operation as soon as possible and make it a producing institution. Considerable attention will be given to the best varieties of potatoes to plant and the most suitable methods of planting with a view to carrying out the Government's scheme to make New Ontario a seed producing country.

Many important lines of work are to be carried out relative to helping perfect Timiskaming agriculture.

MATHESON DEMONSTRATION FARM.

Immediately south and across the T. & N. O. from the town the Government has reserved a lot for farm demonstration purposes. In the fall of 1916 thirty-five acres were plowed and made ready for spring cropping. It was decided to seed all but three acres to O.A.C. No. 3 oats, a variety especially well adapted to conditions in the district. Results were most encouraging, considering the very unfavourable spring season which delayed seeding from two to three weeks as compared with the three previous years. In 1914-15-16 seeding commenced on the 5th of May, but in 1917 it was the 21st before it was possible to commence seeding operations and, although the weather following was not very favourable, the grain came along well. It ripened in approximately ninety days from date of seeding and was not at all affected by the early fall frosts of Aug. 20th and Sept. 6th. There was a yield of fifty-five bushels per acre of well matured, plump, bright grain. After threshing the grain it was shipped to the Government farm at Monteith, where it will be thoroughly cleaned and made ready for distribution to settlers at a nominal price per bushel.

The entire farm was seeded down to clover, a part of which is to be left for seed and hay growing purposes. The seeding of clover with all grain is a practice the Government makes for the purpose of adding fertilizer to the soil and increasing the humus content. About one-third of the farm was fall plowed for next spring's crop, the balance being left in hay.

Three acres were planted to potatoes but results were not very satisfactory on account of the bad season. Nowhere in the district did potatoes do well last summer as compared with previous years. Lack of sunshine, cold, damp weather being the cause, coupled with the fact that seeding was unusually late.

At Matheson, as elsewhere along the Timiskaming and Northern Ontario Railway, the Government plans to demonstrate what can be done in the production of field crops by using varieties that are suitable to climatic conditions.

COCHRANE DEMONSTRATION PLOT.

In the fall of 1917 some ten acres of slashed, unstumped land were taken over by the Government. The plot is a part of the agricultural grounds lying north and west of the town. It is the intention of the Government to proceed with the clearing and fencing of this plot of ground in the spring of 1918. Small demonstration plots of the different kinds of staple grains and root crops will be planted from year to year by way of proving the possibilities of the country from an agricultural standpoint.

SOLDIERS' AND SAILORS' TRAINING SCHOOL, MONTEITH.

The Land Settlement Scheme for the placing of returned soldiers and sailors on the land was put in operation in the spring of 1917. The establishment of a training school on the Government Demonstration Farm, Monteith, was decided upon, and, in order to provide immediate accommodation, temporary quarters were erected in the spring. The building was made to house thirty men. The dormitory, arranged hospital fashion, was equipped with single beds, mattresses, sheets, blankets, pillows, etc. A large living-room, adjoining the sleeping quarters, provided a place of recreation. In this was placed a billiard table, piano and gramophone, for the use and pleasure of the men. Kitchen, dining-room, storehouse,

baggage-room and laundry were built to fully provide for the comfort of those in training.

On June 14th the first lot of men arrived, twenty-seven in all. Some of them were men with farm experience, while others had never worked a day on a farm. In view of this fact we were not surprised to find that, as time passed by, some of them decided that it would not be in their own best interests to carry on with the scheme. Any man deciding to quit was provided with free transportation back to his home. On the whole, the majority of the men showed an interest in the work and were willing to do their best. Certain conditions, peculiar to pioneer life, at times caused some of the men to wonder as to the advisability of staying with the scheme, but, as they became more accustomed to the work and more interested, these difficulties did not appear so formidable.

The men are required to do all kinds of farm work and are entitled to receive lectures of a practical nature on the most important farm subjects. Practical foremen are placed over the men to instruct them in the best methods of land clearing, bush work, care of stock, etc. While in training the men are paid a wage equal to current wages.

By way of making permanent provision to look after the agricultural welfare of those desiring to take advantage of the scheme, a large and thoroughly up-to-date building is being erected. This building will have accommodation for sixty men and is provided with all modern conveniences. No effort is being spared on the part of the Government to make things as comfortable as possible for the men. A rather extensive scheme is being planned whereby this new school may be used in future years as a place of instruction and education, where the holding of short courses in agriculture and domestic science, for the benefit of Temiskaming settlers, will take place.

During the past summer sixty men passed through the regular course of training. Of these, thirteen decided to give up the scheme, as they considered it would not be in their own best interests to follow it through. The other forty-six have decided to go on to the Colony Farm at Kapuskasing, where a large tract of land is held, in 100-acre lots, for settlement. At Kapuskasing the men are settled on farms which in time become their own if they qualify and fill required regulations.

Naturally, on account of the scheme being a new thing, it will take time to work out all details so that it may be carried on in the best possible interests of the men in training. Those in charge have had to look after considerable work in connection with the improvement and building of new farm buildings. The completion of these will allow closer attention to details in the carrying out of work regarding the men in training.

While pioneer conditions still exist in the upper part of the district and settlers are required to put up with many inconveniences, the substantial way in which the Government is prepared to help all returned men desirous of taking advantage of the scheme, will entirely eliminate many hardships which the average settler has to put up with. Much, of course, depends on the men themselves as to whether they become successful in the scheme. The Government is making it possible for them to help themselves and, in so doing, have substantially provided means of looking after all important matters connected with the successful carrying out and completion of the scheme. Time alone will show results, which, because of the fact that the soil of the Clay Belt is fertile and productive, leaves little doubt but that they will be advantageous to those most vitally concerned.

C. F. BAILEY,

Assistant Deputy Minister of Agriculture.

Appendix No. 44.

REPORT OF FORESTRY BRANCH, 1917.

SIR,—The work of the Forestry Branch for the year ending 31st October, 1917, can be conveniently reported under three headings, viz., I. Forest Protection, II. Reforestation, III. Tree Diseases.

I. FOREST PROTECTION.

(1) *Legislation.*

The protection of forests from fire in 1917 was carried on under the authority of new legislation, *The Forest Fires Prevention Act*, which embodied the modern features which experience has shown to be desirable. In brief, these were the permit system in respect to the setting out of fire within a close season, power to compel the cleaning up of fire hazards, and provision for the usual safeguards in the use of engines, mill waste burners, etc. The Act provided for the appointment of a Provincial Forester for its administration.

(2) *Organization.*

The area protected was divided into thirty-four districts, each in charge of a Chief Ranger. Chief Rangers were assisted in their inspection work by one or more deputies according to the number of rangers working in their territory. Over the Chief Rangers were three territorial Inspectors, with headquarters at North Bay, Cochrane, and Nipigon; and the general field work was supervised by a Superintendent for the Province.

The number of rangers appearing on the monthly paylists was: April, 81; May, 828; June, 972; July, 1,042; August, 1,020; September, 885; October, 59. Of this total, the maximum number of rangers employed during any one month exclusively on Forest Reserves and Provincial Parks was 290; a portion of the area is under license. The cost of patrol on reserves and parks was \$88,752.25, and outside these \$277,372.84.

The increased number of men required in the new organization was due to several factors, namely, the addition of rangers on licensed lands, the introduction of the permit system and the placing of protection on areas where none had previously existed.

(3) *Patrol Area.*

An increase in the number of rangers employed was necessitated by an Order-in-Council of April 16th, 1917, imposing an annual fire protection charge of \$6.40 per square mile or fraction thereof on all timber berths or limits under license or permit, and on all pulpwood or timber concessions covered by agreements.

The total area under protection approximated 100 million acres. In addition to Crown Lands, licensed and unlicensed, protection was furnished at the request of the owners to 680,000 acres held in fee simple, the cost of which was borne entirely by them.

(4) *Fires.*

The weather in the earlier part of the fire season was dry. This was particularly the situation in the north-western area of the Province, many sections not receiving any rain till near the middle of June. In consequence, many fires occurred in this region, some of which got beyond control and burned over large areas. For the remainder of the season, on the whole, the weather was wet and the hazard low, till the second week in September when a second dry period set in, especially in the east.

Fire Summary, 1917.

1. Number of fires reported:

1,110, of which 759 had occurred before July 1st.

2. Causes:

(a) Settlers clearing land	91
(b) Neglected camp fires	154
(c) Railway operation	549
(d) Lightning	32
(e) Logging operations	46
(f) Miscellaneous (known)	40
(g) Unknown causes	198

3. Areas:

(a) Timber land, mainly coniferous (softwood)	73,160
(b) Timber land, mainly hardwood	135
(c) Cutover land, some coniferous timber left	148,408
(d) Cutover land, some hardwood timber left	2,160
(e) Young growth,* mainly coniferous	61,806
(f) Young growth,* mainly hardwood	13,202
(g) Barren	82,959
(h) Grassland	2,334

Total 384,164

4. Estimate of Timber Damaged:

(a) Feet, board measure	15,278,000
(b) Cords (mainly pulpwood)	91,246
(c) Ties	781,685

Railway Fires.—As regards the origin of fires the outstanding feature is that almost 50 per cent. of the total number for the season was attributed to railway operation on about 5,000 miles through forest section. The worst conditions obtain on the Canadian Government Railway, where 332 fires out of a total of 549 railway fires, or 60 per cent., occurred. The Canadian Northern Railway Company was required by the Dominion Board of Railway Commissioners to place special patrolmen on some 500 miles of their lines. In addition, the Forestry Branch maintained speeder patrol on some 1,265 miles, mainly on the T. & N. O. and C. G. R.

Throughout the season inspections of fire protective appliances on locomotives on railway lines under the jurisdiction of the Board of Railway Commissioners were

*Stands averaging up to 6 inches were classified as "young growth;" above that as "timber land."

made by provincial officers authorized by the Board. Also the Temiskaming and Northern Ontario Railway Commission, which is not subject to the Board, entered into an arrangement with the Forestry Branch to permit a similar inspection of their locomotives. In all, 771 locomotives were inspected during the summer, of which 229, or 30 per cent., showed defective screens, ash pans or other appliances. This bad showing is in part explainable by the greatly increased volume of transportation coupled with a shortage of mechanic labour.

Other Causes.—Next to locomotives the commonest source is the neglected camp fire. This form of carelessness caused 154 fires, or 14 per cent. of the total. It is to be noted that 51 of the 154 were traced to the neglect of Indians in the western end of the Province.

Settlers clearing land caused 91 fires or 8 per cent. of the total. These were largely outside the area where permits are required.

Area Burned.—The total area reported burned over was 384,164 acres. Of this, around 38 per cent. was cutover land with some coniferous (softwood) timber remaining; 22 per cent. barrens; 19 per cent. coniferous timbered land; and 16 per cent. coniferous young growth (up to six inches). The fact that cutover land and young growth make up 54 per cent. of the total burned area, indicates clearly the influence of the slash and debris accompanying logging operations on the fire hazard. Forest protection can reach only a certain degree of efficiency without a consideration of the matter of brush disposal. Burned timber can usually be salvaged and is of less consequence than the oncoming crop.

Fifty per cent. of all fires did not exceed 5 acres in extent. In only 6 of the 34 fire districts did the total area burned over exceed 5,000 acres. Of the total acreage burned over, 304,677 acres were in the Kenora and Rainy River Districts, leaving 79,487 acres for the remainder of the Province. The large total in the west was caused by fires getting beyond control in the first part of the season during a prolonged dry spell. For instance, in the north-eastern part of Kenora District two fires starting from neglected Indian camp fires burned over 19,200 and 51,200 acres respectively, while another of unknown origin burned over 40,960 acres. Sparks from locomotives on the Canadian Government Railway set fires which burned over 20,160 acres in the vicinity of Millidge, 11,520 acres around Malachi and 12,800 acres north-east of Sioux Lookout. One lumbering concern caused 35 fires by using defective engines on their logging road, burning over 5,081 acres.

(5) *Permit System.*

The close season lasts from 15th April to 30th September. For the application of the regulations regarding the setting out of fire the forest region is divided into "Permit Areas" and "Exempt Areas."

The Permit Area includes those portions of the Districts of Nipissing, Temiskaming, Sudbury and Algoma, north of the C.P.R. from Mattawa to North Bay, and north of the C.N.R. from North Bay westward. Within this territory no fires may be set out without a permit from a fire ranger.

The remainder of the Province forms the Exempt Area, within which a permit is required only in the cases of those persons who have been so notified in writing by the Chief Ranger. This provides for the establishment of Permit Areas locally where conditions require it.

The season was unfavourable for cleaning up land, and only 3,486 permits to burn were issued, covering 15,186 acres, largely in Temiskaming. For a new regulation, the Forestry Branch received hearty co-operation from those concerned, and but three prosecutions were necessary.

(6) *Improvement Work.*

During the season sixty-two lookout towers were constructed; these are wooden frame towers running from thirty to ninety feet in height. In addition, twenty-six observation points were built by ladder construction on suitable trees. Along canoe routes trails were cut to all high vantage points. Owing to labour shortage and the difficulty of obtaining materials the majority of these towers are not yet connected up to telephone systems. In all only thirty miles of telephone were added this season.

The other main new improvements were:

New trails built and existing ones repaired	1,931 miles.
Rangers' cabins, 12' x 16'	44
Boat houses	3
Hose houses	3
Motor car houses	3
Oil houses	2
Gowganda storehouse, 18' x 20'.	
Gogama storehouse, 30' x 50'.	
Bisco storehouse, 22' x 32'.	
Cochrane storehouse, 40' x 70'.	
Dams, docks, etc.	

The material for improvement work cost \$7,000.00.

(7) *Equipment.*

The equipment for a force of 1,000 rangers represents a large outlay. During the year there was spent on equipment \$33,000, and \$5,500 additional on expendable equipment. Specially might be mentioned a 40-foot power boat for Lake of the Woods, equipped with a Gould rotary pump and 1,000 feet of 1½-inch hose. The boats on Winnipeg River and Lake Nipigon were similarly equipped with pumps and hose. Four portable fire pumps were acquired, but delivered too late in the season to be used. Five Ford auto trucks were purchased for use largely in issuing permits. Twenty-eight railway velocipedes were added to the stock. Some 65,000 fire signs were posted.

(8) *Railway Inspection Under B.R.C.*

With the exception of the T. & N. O. and C. G. Railways the lines operated in the Province are subject to the orders of the Dominion Railway Board. Twelve provincial inspectors were appointed officers of the Board to superintend the carrying out of the regulations of Order 107. These men report on all fires originating within 300 feet of the track, inspect fire appliances on locomotives, report on right-of-way conditions, and otherwise carry out the requirements of the Board.

Appended is the annual statistical summary.

**STATISTICAL REPORT OF FIRES ORIGINATING WITHIN 300 FEET OF RAILWAY LINES IN
ONTARIO FOR THOSE LINES SUBJECT TO THE JURISDICTION OF THE BOARD
OF RAILWAY COMMISSIONERS FOR CANADA. SEASON, 1917.**

	C. N. R.	G. T. R.	C. P. R.	A. C.	A. E.	Totals
(a) Railway Fires:						
1. Number, by causes:—						
(a) Locomotives, Class A fires	9	4	3		1	17
Class B fires	52	22	44		1	119
(b) Employees, Class A fires.	1	1	1			3
Class B fires.	8		5		1	14
(c) Total of Class A fires	10	5	4		1	20
Total of Class B fires	60	22	49		2	133
Total of railway fires	70	27	53		3	153
2. Areas burned :—						
(a) Young forest growth, acres	124	117	82		15	338
(b) Timber land	60 $\frac{3}{4}$	9 $\frac{1}{2}$	40			110 $\frac{1}{4}$
(c) Slashing or old burn	3,306 $\frac{3}{4}$	45 $\frac{1}{2}$	1,692 $\frac{7}{8}$		25	5,069 $\frac{1}{4}$
(d) Other classes of land	38 $\frac{3}{4}$	74 $\frac{3}{8}$	617 $\frac{1}{4}$		3	733 $\frac{3}{8}$
(e) Total	3,530	246 $\frac{3}{8}$	2,432 $\frac{7}{8}$		43	6,251 $\frac{1}{2}$
3. Value of property destroyed:	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.
(a) Young forest growth	36 00	48 00	27 00		10 00	121 00
(b) Standing timber	260 00		3 00			263 00
(c) Forest products						
(d) Other property	329 65	241 10	304 00			874 75
(e) Total	625 65	289 10	334 00		10 00	1,258 75
(b) Known Causes other than Rail- way Systems.						
1. Number due to:—						
(a) Campers and Travellers						
Class A fires						
Class B fires						
(b) Settlers, Class A fires	1					1
Class B fires	2					2
(c) Other known causes,						
Class A fires						
Class B fires	3		1			4
(d) Total of Class A fires	1					1
Total of Class B fires	5		1			6
Total of other known causes	6		1			7
2. Areas burned:						
(a) Young forest growth						
(b) Timber land						
(c) Slashing or old burn	503		2 $\frac{1}{2}$			505 $\frac{1}{2}$
(d) Other classes of land	$\frac{1}{2}$					$\frac{1}{2}$
(e) Total	503 $\frac{1}{2}$		2 $\frac{1}{2}$			505 $\frac{1}{2}$
3. Value of property destroyed:	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.
(a) Young forest growth						
(b) Standing timber	240 00					240 00
(c) Forest products						
(d) Other property						
(e) Total	240 00					240 00

STATISTICAL REPORT OF FIRES ORIGINATING WITHIN 300 FEET OF RAILWAY LINES
IN ONTARIO, ETC.—Continued.

	C. N. R.	G. T. R.	C. P. R.	A. C.	A. E.	Totals
<i>(c) Fires of Unknown Origin:</i>						
1. Number:—						
(a) Total of Class A fires	9	1	1	.....	1	12
(b) Total of Class B fires	22	2	24	1	3	52
(c) Total of all unknown fires	31	3	25	1	4	64
2. Areas burned:						
(a) Young forest growth			31	.....		31
(b) Timber land			14	.....		14
(c) Slashing or old burn ...	1,797	35	4,912 $\frac{3}{4}$	$\frac{1}{4}$	100	6,844 $\frac{3}{4}$
(d) Other classes of land	18 $\frac{1}{4}$	.....	148 $\frac{3}{4}$	.....	10	176 $\frac{3}{4}$
(e) Total	1,815 $\frac{1}{4}$	35	5,106	$\frac{1}{4}$	110	7,066 $\frac{1}{2}$
3. Value of property destroyed:						
(a) Young forest growth	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.
(b) Standing timber			7 00	.....		7 00
(c) Forest products		37 50	108 00	.....		108 00
(d) Other property	60 00	.....	61 50	2,383 70		2,482 70
(e) Total	60 00	37 50	495 00	.....		555 00
(f) Total	60 00	37 50	610 00	61 50	2,383 70	3,152 70
<i>(d) Grand Totals for all Causes:—</i>						
1. Number:—						
(a) Total of all Class A fires..	20	6	5	.....	2	33
(b) Total of all Class B fires..	87	24	74	1	5	191
(c) Total of all fires reported.	107	30	79	1	7	224
2. Areas burned:						
(a) Young forest growth	124	117	113	.....	15	369
(b) Timber land	60 $\frac{3}{4}$	9 $\frac{1}{2}$	54	.....		124 $\frac{1}{2}$
(c) Slashing or old burn	5,606 $\frac{1}{2}$	80 $\frac{1}{2}$	6,607 $\frac{7}{8}$	$\frac{1}{4}$	125	12,420 $\frac{3}{8}$
(d) Other classes of land	57 $\frac{1}{4}$	74 $\frac{3}{8}$	765 $\frac{3}{4}$	.....	13	910 $\frac{3}{8}$
(e) Total	5,848 $\frac{1}{2}$	281 $\frac{3}{8}$	7,540 $\frac{5}{8}$	$\frac{1}{4}$	153	13,823 $\frac{3}{8}$
3. Value of property destroyed:						
(a) Young forest growth	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.
(b) Standing timber	36 00	48 00	34 00	.....	10 00	128 00
(c) Forest products	260 00	.....	111 00	.....		371 00
(d) Other property	240 00	37 50	61 50	2,383 70		2,722 70
(e) Total	389 65	241 10	799 00	.....		1,429 75
(f) Total	925 65	326 60	944 00	61 50	2,393 70	4,651 45

II. REFORESTATION.

The nurseries at the Provincial Forest Station, Norfolk County, contain at present the following plants:

White Pine transplants	150,000
Scotch Pine transplants	20,000
Scotch Pine seedlings	100,000
Jack Pine transplants	25,000
Jack Pine seedlings	50,000
White Cedar seedlings	25,000
Red Pine seedlings	25,000
Miscellaneous conifers	10,000
Black Walnut seedlings	30,000
Butternut seedlings	10,000
Sugar Maple seedlings	75,000
White Maple seedlings	50,000
Red Maple seedlings	5,000
Manitoba Maple seedlings	2,000
White Ash seedlings	10,000
American Elm seedlings	5,000
Tulip or Whitewood	5,500
Carolina Poplar cuttings	25,000
Miscellaneous Hardwoods	8,000
Total	630,500

The production of planting material in the nurseries this past season is low owing to the difficulty of procuring suitable seed. Scotch Pine, one of our best trees for waste land planting, is grown largely in Europe, whence we obtain our seed. At present it is impossible to obtain reliable seed of this tree. The native Red Pine is an important tree in connection with this work and we have not had a crop of seed for two years.

The experimental plantations made at this Station during the past years are showing splendid growth. The earliest plantation of pine, made in 1909 on a blow sand ridge, is now twelve to fifteen feet in height and is of great interest to visitors.

During this season we shipped to other parts of the Province about 100,000 plants. Applications for planting material are not coming in as they did previous to the war, and I presume this is largely due to lack of labour.

III. TREE DISEASES.

This has reference largely to the White Pine Blister Rust.

During the season twenty inspectors were engaged in scouting for the disease, and eradicating the currant and gooseberry hosts. This work was carried on with the co-operative supervision of the Dominion Plant Pathologist at St. Catharines, Mr. W. A. McCubbin, to whom we are greatly indebted for this assistance.

On the opening of the fall term the public schools of old Ontario were circularized with a description of the disease and requested to send in suspected currant leaves. Some 4,500 teachers were reached, of whom 1,450 sent in material. This method showed the disease to be much more widely spread than had been thought. The Forestry Branch takes this occasion to express its sincere thanks to the county inspectors, teachers and pupils for their hearty co-operation.

The disease has now been found in thirty-eight counties. So far as known, the northern limit to which it has progressed is a line through northern Simcoe and Ontario, southern Haliburton, southern Peterborough and eastward, and all the peninsula east of Perth town, with an outlying infection at Petawawa. The situa-

tion is accordingly very serious, as it is probable the disease cannot now be stamped out. It would appear that local control, by eradication along the northern limit, is the only practicable measure left.

The disease exists in the following counties: Brant, Bruce, Carleton, Dufferin, Dundas, Durham, Elgin, Frontenac, Glengarry, Grenville, Grey, Haldimand, Haliburton, Halton, Huron, Kent, Lanark, Leeds, Lennox and Addington, Lincoln, Middlesex, Norfolk, Northumberland, Ontario, Oxford, Peel, Perth, Peterborough, Prescott, Renfrew, Russell, Simcoe, Victoria, Waterloo, Welland, Wellington, Wentworth, York.

The Provincial Forester attended a White Pine Blister Rust conference at Pittsburg on the 12th and 13th of November. This conference was called in order to bring together the results of investigations which have been carried on in the United States and Canada.

The reports presented at this meeting show that the disease is present in all the north-eastern States, in Quebec, in Ontario, and as far west as Minnesota; that in some states it is so widespread that its entire eradication is hopeless.

The general conclusion reached at the Pittsburg meeting was that this disease cannot be eradicated, but that white pine can still be grown where local control measures are adopted. This was the opinion expressed by the leading plant pathologists from both countries.

Following the Pittsburg conference a meeting was called at Ottawa of representatives of the Dominion Department of Agriculture, Department of the Interior, the Conservation Commission, Ontario Agricultural College, Departments of Lands and Forests of Quebec and Ontario, and the Lumbermen's Association. After a thorough consideration of the whole situation in Canada the following conclusions and recommendations were arrived at:

1. That it is in the opinion of this meeting at present not feasible, from the practical viewpoint, to eradicate the disease from the heavily infected white pine region in Eastern Canada. This meeting is, nevertheless, of the opinion that much may be done to control or retard the spread of this disease to areas where it is not already found, and to minimize its injurious effects where its occurrence is apparently threatening the white pine forest of a given district.

2. That in the opinion of this meeting scouting for the purpose of finding whether the disease exists in districts not yet examined should be continued.

Inspections have been carried out thoroughly in the southern part of the Province of Ontario and it is considered that further systematic inspections in this district are unnecessary, but inspections should be continued and extended into Northern Ontario, especially between the southern districts and the main white pine areas. Scouting should be continued in the Provinces of Quebec and New Brunswick and should be extended to Nova Scotia and British Columbia.

3. That there are cases of occurrence of the rust on domestic Ribes, especially in isolated positions, where it would be advisable to take steps for the eradication of the domestic Ribes, and in such cases that action should be taken.

An instance of the occurrence referred to is found in the isolated area of infection found at Petawawa, in the Province of Ontario, and while the eradication of the disease is no longer possible on large areas, experience in both Canada and the United States indicates that small centres of infection can be eradicated.

4. Restrictions to be placed on the movement of Ribes and Grossularia (currants and gooseberries) from Ontario nurseries north of a general line to be definitely located later, but which may be somewhere about the Grand Trunk Railway, Parry Sound line, and that similar action be taken in the Province of Quebec.

The plants mentioned are secondary hosts of the White Pine Blister Rust and are, undoubtedly, one of the channels by which the disease is distributed. In order to prevent the development of further areas of infection in the main white pine districts it is considered necessary to prevent the distribution of such stock through such districts.

5. That restrictions be placed on the movement of *Ribes* and *Grossularia* from nurseries in the Provinces of Ontario and Quebec to other provinces.

The distribution of such stock from nurseries in affected districts in the Provinces of Ontario and Quebec might spread the disease rapidly and nullify efforts for its control made by other means. This is specially necessary to protect the white pines of the Pacific coast. While the eastern white pine area is by far the most important on the continent a number of five-needle white pines, which are known to be susceptible to the disease, are present on the Pacific coast, covering areas of such magnitude that their freedom from the disease would be a matter of extreme importance. There is no record as yet of the presence of the disease in British Columbia or the western states, and it is considered by foresters and pathologists as extremely desirable that the disease should be kept from these areas. The measures necessary to attain this end would involve a quarantine to prevent the shipment of nursery pines and currants from the eastern infected districts into areas not yet reached by the rust.

6. The only hope of growing white pine in the future depends on our ability to keep it free from this disease. It is well recognized that in order to do this all plants of the genera *Ribes* and *Grossularia* (currants and gooseberries) must be removed from and around the pine area. It is impossible with our present knowledge to state the exact distance at which pines may be safely grown and a great deal of observation and experiment will be necessary in order to ascertain this distance. Control areas for this purpose have already been established in several of the New England states, and it is highly advisable that similar control areas should be established under Canadian conditions. If these control areas are begun immediately we shall have obtained in a few years definite information on the most critical and vital point in regard to this disease. Unless definite information of this kind can be secured shortly the encouragement of pine growing or the establishment of new pine areas will be a very uncertain project. There is still needed a great deal of investigation which can only be carried out by the plant pathologist. Some work has already been done in Canada along this line, but there are so many questions in regard to the disease which need immediate investigation that it is felt that special attention should be given to such investigation for a number of years to come.

7. The problem in its extent no longer concerns one department or government alone. It is no longer entirely a plant pathological question, but necessitates co-operative action between departments and governments, and with foresters, lumbermen, nurserymen, fruit growers, and other interests. Unless all combine in the support of necessary measures it will be impossible to carry out the work successfully as it cannot be done by government action alone.

8. That in order to ensure full co-operation and concentration of effort it is considered advisable that a commission, having executive authority to direct the necessary work to control the White Pine Blister Rust in Canada, should be formed and duly empowered by the governments and associations concerned, such commission to consist of representatives of the following bodies:

Dominion Department of Agriculture; Dominion Department of Interior; Department of Lands, Forests and Mines, Ontario; Department of Lands and Forests, Quebec; Department of Lands and Forests, New Brunswick; Canadian Lumbermen's Association; Canadian Nurserymen's Association.

9. That the moneys necessary to carry out the work should be appropriated by the governments concerned and placed at the disposal of the Commission.

10. That the total annual amount necessary to carry out this work will be about \$100,000.

I have the honour to be, Sir,

Your obedient servant,

E. J. ZAVITZ,

Provincial Forester.

Appendix No. 35.

RETURNED SOLDIERS' AND SAILORS' LAND SETTLEMENT SCHEME.

Considerable progress has been made in connection with the above plan of settlement during the past year. A temporary training school, accommodating about thirty men was constructed at Monteith, and a much larger permanent building is nearing completion. At Kapuskasing, in the Township of O'Brien, substantial buildings have been erected for the accommodation of the first colony of returned men. The chief buildings consist of nineteen dwellings, fronting on Kapuskasing River, occupied by some of the married men and their families; a large dwelling and office for the superintendent and clerk; a dormitory accommodating fifty men, with kitchen, dining-room and living-room attached; a modern school house which will be in use in January of 1918; a freight shed; a store and several other buildings of a minor class. Some forty-one men are now at Kapuskasing, to be joined at the first of the year by twenty-four of their comrades now at Monteith.

The men in the first place cleared a site for the buildings, and in addition some thirty acres on the Provincial Government farm, which will be maintained at the Colony. This clearing will be placed in crop in the spring of 1918. Their labours are now being directed to the clearing of 10 acres on the front of each 100-acre lot. When sufficient 10-acre clearings have been made to accommodate each member of the party one lot will be allowed to each man.

The men are paid from the time they enter the training school until they go on their respective lots; the rate of pay varies from \$65 to \$84.10 per month, according to the number of their dependents.

The men seem satisfied with their prospects for the future, and undoubtedly this plan of settlement will overcome a great many of the difficulties pertaining to settlement in any new country. Over 500 applications are on file.

Major T. L. Kennedy, of Dixie, also a returned soldier, is in charge of the Kapuskasing Colony.

ALBERT GRIGG,

Deputy Minister.

